



College AND UNIVERSITY Business



THE UNION—A DESIGN FOR COLLEGE LIVING

PORTER BUTTS

Director of the Wisconsin Union
University of Wisconsin

THE DAYS WHEN THE UNION WAS MERELY A place to meet and a place to eat are long since gone. Now it is a community center of the first order. It is a library, art gallery, art workshop, theater, billiard and bowling room, dance center, seat of campus concerts and forums, informal sports headquarters, office building, hotel, public relations agency, ticket bureau, general campus information bureau, convention headquarters and post office.

It is a laboratory of student management and self-expression; caterer to the campus at large, housing the bulk of its meetings and serving its dinners; adviser to student committees; troubleshooter in certain problems of student personnel; teacher of the arts of leisure and recreation. It concerns itself with the whole area of student life and interests outside the classroom, exploring all the possibilities of making study and play cooperative factors in education.

The union probably couldn't be, even if it wanted to be, a specialized department with a single meaning, like, say, chemistry. This is because the union, at bottom, is just another name for the people of the college in their free time. If a union is to respond effectively to the wide range of needs and interests of a college population at leisure, if it is to become genuinely a community center—the social and cultural heart of the campus—it will draw together under one roof those facilities and activities that will give everyone in the college family a reason for coming to this center of their campus.

It will provide first for the things that human beings do in their more elemental daily activity: places and means for meeting friends, for conversation, for lounging and smoking, for reading the newspapers, for dining and refreshment. For young people especially, it will provide for dating and dancing, and for active games. It will provide rooms and equipment that will incite activity and encourage the congeniality that comes from work-

ing together on common projects. Finally, it will offer facilities that will introduce students to the enduring satisfactions of the arts, of hobbies, and of the creative use of leisure generally.

Provisions for personal and social needs will heavily populate the union. The presence and the message of the arts will add grace and purpose to social activity. From this it follows that the known unmet social and cultural needs of the college population should be arranged for in a new community center. It follows, further, that the college should provide there the means of cultivating worthy new interests which may not at the moment be in demand locally but which, upon trial, have had strong appeal to other young people and have inherent recreational or cultural value. In other words, a union is not just a certain kind of physical structure. In the best sense, it is a well considered plan for the community life of the college.

There is yet another thing a union ought to be: laboratory of citizenship.

Good citizens are not made through the advancement of science or by reading the history of our democratic past. Citizens are made when men begin to feel a responsibility for the general welfare; when their interests include not merely vocational matters or personal gains but the destiny of the group to which they belong. Citizens are made by the *experience* of citizenship.

The college has in the union a ready-made natural laboratory for the practice of citizenship, a community center in which all who will may have a part in the direction of community enterprises.

Whatever may have appealed to us in the union program before, there is now so much at stake if we are to have the kind of a world we want, where men can live and work together peacefully and fruitfully, that no effort of a college agency can be spared, the union's included, in the job of producing students who want to use, and know how to use, their college training not for themselves alone but for the common welfare.



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Among the Authors



GAIL A. MILLS

GAIL A. MILLS, controller of Princeton University, has had extensive experience in higher education, banking and public accounting practice. A member of several professional accounting organizations, he is past president of the Eastern Association of College and University Business Officers. The author of an accounting manual for colleges, he was also a member of the national committee that prepared Financial

Reports for Colleges and Universities and, more recently, was secretary of the educational committee that prepared a manual for principles of determining costs for government research in educational institutions. He relaxes by playing bridge, golf and by flying.



GLADYS McCAFFERTY

GLADYS H. McCAFFERTY, director of personnel relations at Harvard University, was the first (and still is the only) woman to hold such a position in as large a university. Five years of intensive experience in industrial relations with the U. S. Rubber Company following earlier social service work, together with six years in a personnel and supervisory capacity at Harvard, gave her the practical background

for her present position. She is sought after repeatedly as speaker, consultant, adviser and organizer of other academic personnel offices. Her special taste is for music—she is an accomplished pianist—and in normal times she enjoys European travel.



W. V. NORRIS

WILL V. NORRIS, professor of physics and supervising and consulting engineer for the University of Oregon, has in recent months made a thorough study of college unions. In his capacity as a registered professional engineer, he has visited more than 200 colleges and universities in this country studying their physical plants and academic work, especially in science fields. He has a taste for automobile

traveling and for good food. One of his major interests is the application of the principles of physics to architecture. . . . A. F. GALLISTEL, an architect and director of physical plant at the University of Wisconsin, has been associated with that institution for forty years. Originally, he served the university as a draftsman in the office of the university architect. Later he became superintendent of construction, engineer of construction and superintendent of buildings and grounds.



W. J. LOEFFEL

WILLIAM J. LOEFFEL, professor of animal husbandry and chairman of the animal husbandry department in the college of agriculture, University of Nebraska, has been dealing with livestock matters ever since his graduation from the University of Missouri in 1917. He has contributed generously within recent years to agricultural and farm journals with particular emphasis on significant research on the subject of swine nutrition. His demonstration of meat cutting and proper cooking technics stole the show at the E.B.A. meeting.

Looking Forward

Alumni to the Rescue

ACADEMIC BUDGETS TODAY ARE CARRYING A LOAD that is close to the breaking point. Campus congestion, increased salaries, and upward spiral of construction and maintenance costs have threatened the proverbial camel with collapse. From where is relief to come?

Those who look to the federal government for substantial help will discover eventually that for security they have traded their freedom from outside interference in the institution's operations.

The alumni constitute one group in the collegiate picture that has been inadequately cultivated. A fund raising authority reports that only a small percentage of alumni contribute regularly to the support of the college from which they were graduated. Certainly a higher return from alumni benefactions might be expected. Of all prospects who might be cultivated, those in this group should be most sympathetic to the needs of higher education.

More than mere playing on sentimental heartstrings will be required to turn the trick. Awareness of the individual's responsibility for the future of higher education should begin during student days. This is assuming, of course, that there is justification for the continuation of an institution. Surely it should not be necessary for alumni to grow old and die before a college benefits from their gifts.

Broadening the base of alumni support is one concrete method by which a college can improve its financial position. Typical of such action is Yale's announcement of the formation of a new University Council of twenty-five alumni from all parts of the nation to develop plans for the constant improvement of the university's educational affairs.

Congress Gets Curious

IN DECEMBER THE WAYS AND MEANS COMMITTEE of the House of Representatives evinced an interest in the taxability of college and university earnings in view of the tax-exempt status of educational institutions.

Some measure of this interest reflects the complaint filed with the ways and means committee by the American Council of Commercial Laboratories. In this complaint it was asserted that "fifty-two land-grant colleges and universities are engaged in busi-

ness operations netting millions of dollars annually on which they pay no taxes." The A.C.C.L. wants legislation amended so that educational institutions will be required to file Internal Revenue Form 990 which details all income and disbursements.

Those representing the cause of higher education before the House committee were unanimous in defending the principle of tax exemption of educational institutions. They asserted that all income from business enterprises conducted by higher education was devoted to educational purposes and that none was returned to individuals in the form of profits or dividends. For that reason the institutions should not be liable to taxation.

Higher Education and National Affairs, in its issue of December 23, comments: "Chairman Knutson and his committee are in complete sympathy with education but are determined to 'nip in the bud' any unreasonable violations of the tax-exemption privilege enjoyed by educational institutions." This might be interpreted as a continuation of the present tax-exempt policy for educational institutions. Any college or university that crosses over into promotion or operation of a purely competitive business enterprise had better watch its step. Congressmen can become unpleasantly inquisitive about such things.

Half a Loaf

MOST DIFFICULT DECISION FOR INVESTORS TO make under formula plans is to sell a certain percentage of their investments when the market is rising and to buy securities on a percentage formula when the market is falling, Lucille Tomlinson, former associate editor of *Barrons*, says in her book "Successful Investing Formulas." Her observations are based on a twelve-year study of colleges and universities that have initiated formula plans to govern their acquisition and disposal of investments for their endowment portfolio.

In the long run, however, a formula plan that provides for disposal or acquisition of securities on the basis of a certain percentage has been profitable. It reduces considerably the hazard of investment trading for those who prefer not to do their market trading on the basis of hunches or alternating periods of optimism and pessimism. Miss Tomlinson's book merits study by college investors.

EFFECTIVE METHODS OF DEPARTMENTAL

Budget Control

THE FINANCIAL PROBLEMS OF A nonprofit educational institution differ radically from those of a commercial enterprise. In industry, it is necessary to have detailed cost records as a guide in determining the selling price. In an educational institution, tuition is not based on the cost of teaching students. No student pays the full expense of his education because income from sources such as endowment, state and federal appropriations and gifts covers a considerable portion of the cost. It seems that no educational institution ever has enough money to finance all teaching and research activities visualized by its staff members.

The financial administration of a nonprofit educational institution, therefore, becomes one of collecting all possible resources, equitably apportioning the resources to the academic departments and then seeing that each year the expenditures are kept within the available income.

PURPOSE OF ACCOUNTS

In an educational institution, the purpose of an accounting system should be not merely the recording of financial transactions. The system should be so designed and carried out that it will produce prompt, accurate and permanent records of all financial facts so that those who are concerned may have readily available information regarding any activity of the institution they may reasonably desire. Incompleteness and incorrectness in the bookkeeping records lead to errors in financial data and may result in faulty administrative decisions. Accounting and reporting are not ends in themselves; they are necessary as guides for successful financial administration.

BASIC FUNDAMENTALS

In any accounting system three types of transactions must be provided for: the receipt of cash, the disburse-

G. A. MILLS, C.P.A.

Controller, Princeton University

ment of cash, and the recording of entries that do not involve cash. Any and all systems, therefore, must provide some form of cash receipts journal, cash disbursements journal, general (non-cash) journal, and a ledger or permanent record in which the receipts, disbursements and non-cash entries are recorded in an organized manner so that the income for a period is shown by type and/or by source and the operating expense is broken down by units of operation and/or by types of expenditure.

It is almost impossible for an educational institution to function efficiently unless it uses a budget, detailed accounting records, and accurate financial reports. In order for these to be effective, they must be correlated so that figures taken from one are strictly comparable to those found in the other two.

BUDGET SYSTEM FOLLOWED

The basis for financial operation of an educational institution is the budget of income and expenditures. It should be prepared and submitted to the board of trustees or other governing body for approval prior to the opening of the school year.

In order that the budget may be used to exercise the maximum control over operations it should be incorporated into the accounting system proper through the use of estimated income and appropriation accounts. In very small institutions the inclusion of all accounts covering unrealized income, unexpended appropriations, and outstanding orders and contracts may not be necessary. In such institutions the preparation of monthly reports comparing budget estimates with actual income and expenditures may be

sufficient. The nomenclature of the budget items and all the income and expenditure accounts should be identical. No college is so small that it does not require a budget.

MACHINE ACCOUNTING

If volume justifies the purchase of bookkeeping machines, great care should be used in the selection of the make and model, and the accounting system should be set up in a manner to make full use of the equipment. If bookkeeping machines are used, economy is quite frequently effected in the purchase of forms. In general, the stationery for an accounting machine costs less than comparable stationery for the same system under the pen and ink method. No special glazed paper is required to prevent the spreading of ink. In most cases the down ruling is of a simple nature and cross ruling is not required. Forms should provide for all necessary information—no more, no less. In determining the width of columns, provision should be made for not only the maximum entry but also the maximum total. The size of the forms must be governed primarily by the entries going into them.

A well known bookkeeping machine not only will post the appropriation, income and other ledgers but also will handle the pay roll records. If properly set up, at the end of each posting job it will prove that the old balances have been picked up accurately, the correct amounts have been entered in the correct columns of the correct ledger sheets, the new balances are correct, and the machine has not made an error. The monthly trial balances may also be taken on it.

By use of machines, considerable time is also saved in many channels other than the actual bookkeeping operation. The fact that accounts are always balanced saves considerable reference time. Journal or proof sheets,

which are provided by up to date accounting machines, are important to the controller or business manager because they show a complete summary of the day's transactions, listing the debit and credit entries together with the current balance of each account affected. If he will spend a few minutes each day inspecting the proof sheets, he will know the status of all accounts that have changed.

BUDGET CONTROL ACCOUNTS

For complete budget accounting, five special general ledger or control accounts are needed. If outstanding orders are not recorded on the ledger sheets, only three special accounts will be used. Totals, not details, are posted to the control accounts and entries may be made daily, weekly or monthly according to how the system is set up.

1. *Estimated and Realized Income (Dr. or Cr. balance)* is debited at the beginning of the fiscal year by journal entry with the total budget estimated income. If during the year the budget is revised, increases are debited to the account and decreases are recorded as deductions from debits. The account is credited during the year with the income as realized. Rebates are treated as deductions from credits. The total of the debits column of this account shows the estimated income for the fiscal period, the total of the credits column shows the income realized to date, and the balance represents the amount as yet unrealized or the amount over realized.

It is a control account for the subsidiary income ledger that shows in detail the estimated and realized income from the various sources. The total debits, total credits, and balance should each check with the subsidiary ledger trial balance totals. At the end of the year, this account is closed to account No. 5, Unappropriated (Estimated) Income.

2. *Appropriations and Expenditures (Cr. balance)* is credited by journal entry at the beginning of the year with the total appropriations made, subsequently by journal entry with any additional appropriations, and if desired also with appropriation credits resulting from departmental receipts. Departmental receipts are those which belong to specific departments but which were not anticipated when the budget was prepared and therefore not included in the budget estimates of income. If during the year appropriations are reduced, the entries are re-

corded as deductions from credits. The account will be debited with the actual expenditures charged against the various appropriations. Expenditures canceled are entered as deductions from expenditures.

The total of the credits column of this account shows the net total of all appropriations plus departmental receipts to date, the total of the debits column shows the total expended to date, and the balance represents the amount authorized but not yet expended. It, together with account No. 3, Orders and Contracts Outstanding, operates as a control account for the subsidiary appropriation ledger which shows in detail the various appropriations. The subsidiary ledger trial balance totals should each check with the control figures as follows:

Total outstanding orders same as balance in account No. 3.

Total expenditures same as total debits in account No. 2.

Total credits same as total credits in account No. 2.

Total free balances same as balance in account No. 2 minus balance in account No. 3.

At the end of the year any balance in this account not reappropriated is closed to account No. 5, Unappropriated (Estimated) Income. The reappropriated amount, of course, is carried forward as a credit and as a credit balance.

3. *Orders and Contracts Outstanding (on balance sheet deduct from account No. 2) (Dr. balance)* is the contra-account of account No. 4. It is debited with the estimated cost of all orders issued. As orders are paid the account is credited with the original estimate. The balance represents the total estimated cost of all outstanding orders and contracts. On the balance sheet it is deducted from the balance of account No. 2 and the difference is the total of the free balances in the various appropriation accounts as shown by the subsidiary appropriation ledger.

4. *Reserve for (Encumbrances) Orders and Contracts Outstanding (Cr. balance)* is credited with the estimated cost of all orders issued. As orders are paid the account is debited with the original estimate. The balance represents the total estimated liability of the institution for outstanding orders and contracts and is supported by copies of unpaid purchase orders which are filed by account numbers. It is shown as a liability on the balance sheet.



TOP: Machine set up for book-keeping. Three records are written in one operation: ledger sheet, departmental monthly statement, and proof sheet or journal. CENTER: Machine set up for pay roll. Five records are written in one operation: individual employee's earning record, check, check stub, pay roll voucher, and pay roll check register. BOTTOM: Machine in operation writing the pay roll records. Even though continuous form checks are used and the name is typed only once, it not only appears on the check but also appears on the check stub.

5. *Unappropriated (Estimated) Income (Cr. balance)* is credited by journal entry at the beginning of the year with estimated income as shown in the budget. If during the year the budget is revised, increases are credited to the account and decreases are recorded as deductions from credits. It is debited by journal entry at the beginning of the year with appropriations made for the year according to the budget and subsequently for any additional appropriations. If appropriations are decreased they are recorded as deductions from debits. The

balance of this account shows during the year the amount available.

At the end of the year any under realized or over realized income is closed from account No. 1 and the subsidiary income ledger to this account. Also at the end of the year all balances in appropriation accounts that are not reappropriated are closed from account No. 2 and the subsidiary appropriation ledger to this account. The balance then becomes the actual cur-

rent surplus or deficit as of the last day of the year and is then closed to the regular surplus account.

SUBSIDIARY INCOME LEDGER

This ledger includes an account for every item of income shown in the budget. It is debited with the estimated amount shown in the budget and with any additions made thereto during the year. Reductions in the budget are recorded as deductions

The Income Ledger Sheet is 11 by 12.7 inches, near enough to standard size that a standard tray and stock transfer binders may be used. The Appropriation Ledger Sheet fits into the standard bookkeeping tray.

PRINCETON UNIVERSITY OFFICE OF THE CONTROLLER				INCOME LEDGER				Account No. _____ Sheet No. _____	
Name of Account _____									
DATE	REMARKS	FOLIO	CODE	ITEMS		TOTALS		BALANCE	
				DEBITS	CREDITS	DEBITS	CREDITS		

PRINCETON UNIVERSITY OFFICE OF THE CONTROLLER				APPROPRIATION LEDGER				Account No. A-120 Sheet No. 1		
Name of Account _____				Chemistry						
DATE	NAME OF DESCRIPTION	FOLIO	CODE	ITEMS			TOTALS			PRELIMINARY BALANCE
				ORDERS	DEBITS	CREDITS	ORDERS	EXPENDITURE	CREDITS	
JUL 1 46	BUDGET (1) JV 1					1,000.00	.00	.00	1,000.00	1,000.00
JUL 3 46	COMM SOLVENTS (2) 268			125.00						
	E & I SERVICE (2) 275			30.00						
	E H SARGENT (2) 278			175.00						
JUL 10 46	WESTERN UNION (3) 87				7.49 W		350.00	7.49	1,000.00	620.00
AUG 5 46	COMM SOLVENTS (3) 756			125.00	127.14 W		330.00	7.49	1,000.00	643.60
AUG 10 46	GIFT JAS SMITH (4) CR 25					100.00	225.00	134.54	1,000.00	640.46
AUG 15 46	CENT SCIENTIFIC (2) 427			400.00				134.54	1,100.00	740.46
	GRAY INSTRUMENT (2) 442			200.00			825.00	134.54	1,100.00	140.46
JUN 5 47	E & I SERVICE (3) 1092			30.00	30.00 W		775.00	184.54	1,100.00	140.46
FEB 10 47	E H SARGENT (3) 2147			175.00	171.50 W		600.00	356.04	1,100.00	143.96
FEB 10 47	Services (5) 275				15.00 W		600.00	341.04	1,100.00	158.96
MAY 10 47	E & I SERVICE (2) 798			120.00			720.00	341.04	1,100.00	38.96
JAN 15 47	CENT SCIENTIFIC (3) 10147			400.00	403.50 W		120.00	942.54	1,100.00	37.46
	GRAY INSTRUMENT (3) 10350			300.00	198.00 W		120.00	950.64	1,100.00	29.36
JAN 10 47	WESTERN UNION (3) 11456				8.10 W		120.00	950.64	1,070.64	.00
JAN 30 47	TO CLOSE (1) JV 146					29.36	120.00	.00	120.00	.00
JAN 1 47	BALANCE						120.00	.00	120.00	.00

- (1) Journal entry number
 (2) Order number
 (3) Invoice number
 (4) Cash Receipts Voucher number
 (5) Interdepartmental Invoice number (Chemistry sold material to Physics)
 * Code used for later classification of expenditures
 W- Salaries and Wages
 M- Materials, supplies, communications, travel, etc.
 E- Equipment

Last amount in this column is net total of unpaid orders.

Last amount in this column is total of expenditures for year to date.

Last amount in this column is total of credits for year to date.

Last amount in this column is free balance.

34-540-Form 100

from debits. It is credited during the year with the income as realized. Rebates are treated as deductions from credits. The balance, therefore, shows the amount as yet unrealized or the amount over realized if that is the case.

At the end of the year all income ledger accounts are closed.

This ledger is controlled by the general ledger account No. 1, Estimated and Realized Income, which account is closed to account No. 5, Unappropriated (Estimated) Income, at the end of the year. The total of the closing entry will be entered in the debit column of the control account and the detail in the debit columns of the respective accounts in the subsidiary ledger. If an account shows an unrealized balance the entry will be a deduction from debit, and if it shows an over realized balance the entry will be a debit; when the closing journal entry is posted the control account and all accounts in the subsidiary ledger will have zero balances and the total debits will equal the total credits in each account.

The balances during most of the year will be debits so the bookkeeping machine should be set up to record debit balances as black and credit balances as red.

SUBSIDIARY APPROPRIATION LEDGER

This ledger includes an account for each and every appropriation listed in the budget. These accounts show at all times total credits to date, total expenditures to date, amount reserved for unpaid orders, and free balance available for expenditure.

Orders placed are entered in the orders column at either quoted or estimated amounts, expenditures are entered in the debits column, and credits are entered in the credits column.

Orders paid are entered as deductions in the orders column in the same amounts as previously placed, cancellations of expenditures are entered as deductions in the debits column, and cancellations of credits are entered as deductions in the credits column.

The department's copy is a carbon copy of the ledger sheet which is prepared at the same time the original ledger sheet is posted. The posting should be kept up to date so that the monthly statements are sent to the departments not later than the third or fourth of the following month.

This ledger is controlled by the general ledger account No. 3, Orders and Contracts Outstanding, and account

No. 2, Appropriations and Expenditures. Account No. 3 is not closed but account No. 2 is closed to account No. 5, Unappropriated (Estimated) Income, at the end of the year. The total of the closing entry will be entered as a deduction in the credit column of the control account and the detail as deductions in the credit columns of the respective accounts in the subsidiary ledger. Reappropriated amounts, of course, are carried forward as credits and as credit balances.

The balances during the year should always be credits so the bookkeeping machine should be set up to show credit balances in black and debit balances (overdrafts) in red. The book-

keeping machine will compute and show overdrafts (reverse balances), if for any reason an account should have a reverse balance, in any or all of the three total columns and the free balance column. It not only records all deductions in the item columns in red but also records a minus sign. The departmental statement sheets, being carbon copies, of course do not show red but the minus sign is clear.

INTERNAL REPORTS

Trial balances of the income and appropriation ledgers, if taken off in proper form, will serve as operating statements for the controller or business manager. They will show for each

SCHEDULE A

STATEMENT OF UNAPPROPRIATED (ESTIMATED) INCOME AS OF.....

Unappropriated (Estimated) Income per last report dated..... \$

Additions:

Itemize..... \$

Total..... \$

Deductions:

Itemize..... \$

Unappropriated (Estimated) Income..... \$

SCHEDULE B

SUMMARY STATEMENT OF REALIZATION OF INCOME AS OF.....

	Budget Estimate	Realized to Date	Unrealized Balance	% Unrealized Same Date	
				This Year	Last Year
EDUCATIONAL AND GENERAL					
From Endowment.....	\$	\$	\$		
From State Appropriations.....					
From Students.....					
From Other Sources.....					
Total Educational and General....	\$	\$	\$		
AUXILIARY ENTERPRISES AND ACTIVITIES					
Residence Halls.....	\$	\$	\$		
Dining Halls.....					
Student Hospital.....					
Bookstore.....					
Intercollegiate Athletics.....					
Total Auxiliary Enterprises and Activities.....	\$	\$	\$		
OTHER NONEDUCATIONAL.....	\$	\$	\$		
Grand Total.....	\$	\$	\$		

account the number, name and figures as follows:

Income Ledger

Budget estimate, amount realized to date, and the unrealized or over realized balance.

Appropriation Ledger

Encumbrances (outstanding orders), expenditures for the year to date, credits for the year to date, and the free balance.

Three valuable summary statements are:

Statement of Unappropriated (Estimated) Income (Schedule A)

Statement of Realization of Income (Schedule B)

Statement of Appropriation (Schedule C)

These statements may be prepared monthly for the president. Any under-realization of income will be brought to his attention by schedule B; the controller or business manager should advise him if it is only temporary and to be realized in the near future or if certain factors have caused a definite decrease for the current year. Schedule C will indicate how well the departments are staying within their appropriations.

The statements of realization of income and of appropriations taken together will indicate if and what revision of the budget is necessary.

Indication of a decrease in income may necessitate reducing appropriations to avoid a deficit for the year. On the other hand certain departments may require additional appropriations, and if the statement of income indicates the budget estimates are safe, the amount available for additional appropriation is indicated by the Statement of Unappropriated (Estimated) Income, Schedule A.

At the end of each quarter these statements may be furnished to members of the board of trustees or other governing body.

ANNUAL FINANCIAL REPORT

If the budget has been properly organized and set up so that it conforms to the annual financial report, the appropriation ledger will readily furnish the operating expenditures for the year. If all income as received is credited to the income ledger, it will readily furnish the operating income for the year. If special departmental receipts are credited to the appropriation ledger as received, the statement of operating income will include not only the figures shown in the income ledger but also the income from departmental receipts which has been recorded in the appropriation ledger.

SHOULD V.A.

THE CRUX OF VETERANS' PROBLEMS at the colleges has been largely due to the regulatory power created by the Servicemen's Readjustment Act (P.L. 346).

Many rulings were issued. Too many of these rulings had retroactive effect. Others ran counter to normal college policy which had been in practice for decades. These rulings, together with delays and errors, led to misunderstandings. Some of us then appealed, and Gen. Omar Bradley promptly applied correctives. Today much of the misunderstanding has been leveled off and colleges report improvement all along the line.

All is not perfect, but I do believe that a hearty expression of commendation is due the Veterans Administration for its success in correcting the refund and term-end payment problem and for the speed-up plan in the issuance of certificates of eligibility.

To get a current opinion on the college veterans' problem, a questionnaire was sent to a cross section of Eastern colleges. A word of thanks is due them for their cooperation. The questionnaire pertained to: (1) financial relations with the Veterans Administration; (2) eligibility expirations; (3) administrative costs; (4) suggested changes in the veterans' act; (5) veterans' housing.

The following facts were established:

Advance payments are meeting the tuition problems.

The colleges are satisfied with the percentage payment for partial attendance.

Their collection difficulties are limited to complaints about paper work and suspensions.

Colleges are almost equally divided in their desire to have eligibility expiration information in terms of time and dollars.

All colleges have increased their staffs to cope with paper work and feel they should be reimbursed. Costs

SCHEDULE C SUMMARY STATEMENT OF APPROPRIATIONS AS OF.....

	Credits	Expenditures	Encumbrances	Free Balance	% Free Same Date This Year	% Free Last Year
EDUCATIONAL AND GENERAL						
General Administration and						
General Expense.....	\$	\$	\$	\$		
Instruction.....						
Research.....						
Library.....						
Operation and Maintenance of						
Physical Plant.....						
Total Educational and General	\$	\$	\$	\$		
AUXILIARY ENTERPRISES AND						
ACTIVITIES						
Residence Halls.....	\$	\$	\$	\$		
Dining Halls.....						
Student Hospital.....						
Bookstore.....						
Intercollegiate Athletics.....						
Total Auxiliary Enterprises and						
Activities.....	\$	\$	\$	\$		
OTHER NONEDUCATIONAL.....	\$	\$	\$	\$		
Grand Total.....	\$	\$	\$	\$		

CREATE STUDENT LOAN FUND?

J. N. SCHLEGEL

Treasurer, Lafayette College

run from \$3 to \$25 per year per man. The average of figures submitted would be \$8 per year per man. Generally speaking, these figures included only salaries of clerks and stenographers and therefore do not represent total cost.

They suggest a minimum of changes in the veterans' act but submit the following objectives for V.A. consideration:

1. That the V.A. strive to correct the "suspension" situation which, if permitted to continue, promises to become an issue as disturbing to the colleges as was the refund ruling.

2. That the V.A. determine the cost of abiding by rulings accepted in good faith by colleges and, rather than make new retroactive rulings canceling previous rulings, work a compromise in case an area administrator has erred in a ruling. No one likes to have the rules changed after the play has been made.

3. Organization of a trouble-shooting committee that can clear up local difficulties, such as errors, collection difficulties existing with only one or two institutions, and delays in processing certificates.

4. That the V.A. consider an amendment to the act or a ruling that would establish and clearly define the difference between nonprofit institutions and those organized for profit.

5. That an effort be made to reimburse nonprofit institutions for administrative costs over and above that expended for nonveteran students. (Some will argue that the law must treat all institutions alike. But it doesn't. It permits a profit to the profit institution. It imposes a loss on the nonprofit institution. We ask for neither gain nor loss; we ask for the cost.)

VETERANS' HOUSING

Housing was a veterans' problem at a number of colleges. The amounts advanced under F.P.H.A. contracts for

site preparation and utilities vary from a low of \$5000 to a high of \$199,000.

Most colleges report satisfactory operating conditions but a number are concerned about how they will recover the original investment, costs of demolition and site restoration.

For those colleges that have expended much needed sums, I suggest concerted action to recover what seems to me a legitimate claim. Unless we do, well, our situation will be best described by one of our state mottoes: "United We Stick, Divided We're Stuck."

ELIGIBILITY EXPIRATIONS

One of the veterans' problems viewed too lightly is: What is going to happen when the eligibilities begin expiring in great numbers?

In the questionnaire I tried to get an estimate of these expirations and the ratio of veteran enrollment to total enrollment, but only two colleges were prepared to supply these data. In other words, I believe I am safe in suggesting that only about 5 per cent know how many eligibility expirations will occur in their college this year, next year and so on.

Last April Nelson R. Henson, then V.A. director of training service for vocational rehabilitation and education, stated: "The V.A. is seriously concerned about the problems that are going to develop both for the V.A. and for the colleges when veteran eligibilities begin to expire in great numbers. . . . They are going to be serious and large." At about that time I, too, was delving into the probable effect of these expirations and from some figures I was able to get, it would appear that in 1948-49 eligibility of from 10 to 20 per cent of the veterans will expire and 2 per cent will be seniors. In 1949-50 eligibility of from 30 to 40 per cent of the veterans will expire and 10 per cent will be seniors. In 1950-51 eligibility of about 50 per cent of the

veterans will expire and 25 per cent will be seniors.

These estimates indicate that meeting this problem is a task too large for the colleges to handle.

A little later I proposed to General Omar Bradley that V.A. create a loan plan for veterans whose eligibility expires before their college work is completed. Two amendments were submitted that would broaden the loan provisions of the act to include loans for the completion of education. The language of the law as now written permits loans to purchase farms, for instance, and then makes it possible to get a supplementary loan to buy a tractor or a cow.

General Bradley stated that these amendments were most helpful and would be given consideration.

My purpose in urging a broadening of the loan provisions of the veterans' act is not motivated by generosity. There is little help in giving the maimed veteran a car with only one wheel or two wheels or three wheels. In educating the veteran the same principle applies: It should not be a matter of one, two or three years. Less than four years and the veteran becomes an unfinished educational product that later may be more embittered than enlightened.

RISK IS REASONABLE

If we are worried about whether veterans will pay back the loans, I believe the government is exposed to less risk on these loans than on some of the international loans, to say nothing of property loans. Property will depreciate, but a well trained mind will continue to produce and earn.

Regarding this loan plan, immediate well directed and concerted action will create a pattern more acceptable to the college, no less beneficial to the veteran, and perhaps more desirable for V.A. administrative purposes.

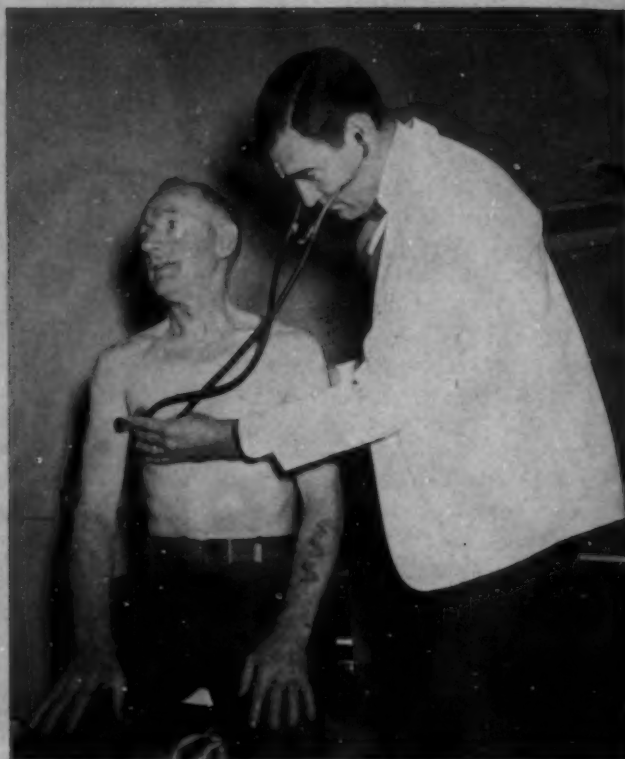
If, however, we choose to be apathetic and indifferent I leave to your imagination what the veteran and the public will think of the colleges that knew the situation was developing and did not cooperate in reaching a solution.

It is too big a problem for colleges to cope with out of their own resources. It remains for us to unite to find a solution before valuable time runs out and before educational objectives are frustrated.

HARVARD OPERATES EMPLOYEES' CLINIC



CLINIC BUILDING is a temporary structure but it has its own identity. In the beginning the employees' clinic was an offshoot of the student clinic and handled emergency and first aid cases only.



EMPLOYEE FERGUSON gets a thorough check-up. One doctor is on duty each morning and a surgeon reports each afternoon. Other physicians are on call for physical exams; there is a full time nurse.

TO FURNISH CARE TO EMPLOYEES WHO were injured or became ill while at work, Harvard University in 1931 established an employees' clinic to operate in conjunction with its students' clinic. With the appointment of a surgeon to care for the employees in 1932, the employees' clinic became a separate unit.

In 1935 a physician and full time nurse joined the staff, and since 1939 the staff has consisted of a surgeon, physician, nurse and secretary. During 1946-47 this staff was able to furnish medical care to the 2663 patients who made 8696 visits to the clinic.

Although the original function, to provide care for employees who were injured or became ill at work, has not changed, the duties of the clinic have grown considerably. At present they include such services as:

1. Diagnosis and treatment of industrial accidents and illnesses.

2. Pre-employment physical examinations.

3. Yearly physical examination of food handlers.

4. Medical check-up of all employees who return to work after an illness.

5. Periodic check-ups on employees who have illnesses or defects that might be of danger to themselves or others.

6. Dispensing of medical information and occasional medical care to ensure the best medical attention possible for employees.

In the case of nonindustrial illness or accident, however, competition with private physicians is strictly avoided. Furthermore, in the case of industrial accident or illness, the employee has free choice of physician or surgeon.

Administratively, the employees' clinic is a division of the university hygiene department and with the ex-

ception of the infirmary has the facilities of the department at its disposal. Such facilities include a laboratory for routine work and blood chemistries, x-ray equipment, dental clinic, psychiatric consultants, and in emergencies the use of the students' clinic. When hospitalization or services requiring the use of hospital facilities are necessary, the clinic has called on metropolitan Boston institutions.

Since 1946, the clinic has been housed in its own building. This "temporary" wartime structure consists of a large sunny waiting room, nurse's room, utility room, physical therapy room and lavatories.

One end of the waiting room contains files and the secretary's desk. A counter stretching almost the width of the room separates patients from the file area. The doctor's rooms are equipped for carrying out physical examinations and the surgeon's room

AND FINDS THAT IT PAYS

GLADYS H. McCAFFERTY

Director of Personnel Relations
Harvard University



Clinic safeguards health of employes and promotes good will. Medical service costs less than that provided elsewhere.

CONFIDENTIAL RECORDS are kept of each employe and cumulative yearly statistics are submitted to the hygiene department. Expenses are met by the various departments using the clinic, each department being assessed according to the number of visits made by its personnel yearly.

for handling all minor surgical cases. All rooms are lighted with incandescent bulbs; exhaust fans in the attic furnish constant changes of air. Heating is from the central university heating plant.

Doors of the clinic open at 8 a.m. From 8 until 11 o'clock a physician is on hand and from 12 until 2 o'clock the surgeon has hours. A nurse is present full time. Additional doctors are frequently in attendance from 2 until 4 p.m. as well, usually concentrating on physical examinations.

Arrangements exist with the nearby Mount Auburn Hospital for treatment of accidents outside of office hours; when needed, an ambulance is available. Specialists are on call from the hygiene department for unusual cases.

All doctors working in the employes' clinic are graduates of Class A medical schools and serve also on the

staffs of nearby hospitals. In 1935, the American College of Surgeons approved the clinic and this approval has been maintained since then.

As for records, the clinic maintains files in accordance with the Massachusetts Industrial Accident Board. Except for industrial illnesses and accidents, all records are confidential. Cumulative yearly statistics, including a catalog of diseases, are kept and yearly reports are submitted to the hygiene department.

Money to run the clinic comes from the various departments that use its facilities. The amount assessed each department depends on the number of visits its employes make to the clinic during the preceding year.

For the year 1946-47 this cost figured out to \$1.55 a patient. The annual report for that year shows that there were 8696 visits to the clinic by 2663 patients. This is from a total

university employe population of 3848. Any additional expense, such as hospitalization and consultation, is charged directly to the department incurring the use.

The establishment of the employes' clinic has brought greater benefits to both employes and university. Employes are pleased with their own clinic and the cost of medical care for industrial accidents is lower than if they were handled by an insurance company. Also, because the clinic is handy, it has been found that employes drop in for check-ups and examination when otherwise they might be inclined to let ailments slide until serious complications develop.

Thus, Harvard University has found by operating its own clinic that it can best safeguard the health of its employes and promote good will—and do it more economically than if it were done by an outside agency.

PROGRAMMING AND PLANNING THE COLLEGE *Union Building*

AVOID THESE MISTAKES IN *Union Building*

A QUESTIONNAIRE ON THE MAIN shortcomings of college union buildings was sent last spring to 60 colleges operating unions by the Association of College Unions.

Thirty union directors responded and since the answers came from institutions in all parts of the country and from unions of all sizes, it would appear that a fairly representative opinion was received. The results can be looked upon, therefore, as valuable.

In the discussion that follows the questionnaire comments are classified in 14 categories: (1) food service; (2) general planning; (3) maintenance and operation; (4) storage; (5) check rooms; (6) game rooms; (7) meeting rooms; (8) lounges; (9) administration office space; (10) ballroom; (11) workshops; (12) restrooms; (13) student activities' offices; (14) special facilities.

Several general conclusions can be drawn from these comments. First, there is an amazing similarity in the suggestions and ideas emanating from all the college union directors, regardless of the size of their buildings. This would indicate there is real value in the exchange of information between

both large and small unions. In planning a new building or in planning additions or renovations, one should not, therefore, make the mistake of looking only at unions of a certain size. We at Columbia began in this error, believing that only the union buildings serving 2000, 3000 or 4000 persons could be of help to us.

Another general observation is that architects and group planners usually have given sufficient attention to student activity areas but have been skimpy on space for food service, general administration, maintenance and operation. The person who is going to have to administer and operate the building should be sitting in on the planning from the beginning. Often a building is handed over to the director after the architects have done their best (or worst), and then he is asked to operate a huge lounge, game room and little else.

These are the high points of what the operating directors had to say.

FOOD SERVICE

Far and away the most serious shortcoming among the buildings reported on has to do with facilities for food

service. Seventy per cent of the respondents testified that improvements were needed in one or more ways.

Major improvements suggested were: (1) better grouping of kitchens, cafeterias and private dining rooms; (2) improved transportation of food and equipment between floors and on the same level; (3) pantry, storage and dishwashing space near certain catering areas when these areas cannot be located next to the major food service area; (4) more space and additional and better equipment.

Other suggestions offered had to do with soundproofing and air conditioning of all dining room areas; more private dining room space, and flexibility in the arrangement of dining areas by means of sliding doors.

GENERAL PLANNING

Sixty per cent of the union directors had suggestions to make on the general approach to planning, notably in regard to better lighting, sound treatment and ventilation.

A recurrent note was the admonition, "Build large." As one director advised: "Plan more space for everything than you think you will need."

**FIVE ARTICLES YOU WILL
WANT TO READ, IF YOU ARE
TO DESIGN, BUILD, ENLARGE
OR REMODEL A COLLEGE
UNION OR ARE TO DIRECT
ITS PROGRAM OF ACTIVITIES**

THOMAS McGOEY

Director of University Residence Halls
Columbia University

There was frequent reference to the lack of planning for the growth both of union activities and of college or university enrollments.

The larger unions stressed the need for streamlining of facilities and equipment to achieve efficient and economical operation. Involved in this is careful planning of the flow of people, and materials as well as choice of the proper equipment.

MAINTENANCE AND OPERATION

Fifty-three per cent of the respondents told of shortcomings in maintenance and operation facilities. Elevators apparently are a great lack. One fourth of those replying reported the need for more and larger elevators of both the passenger and service type. This seemed to hold regardless of building size. Apparently if more than one floor is planned, immediate thought should be given to vertical transportation.

Another idea consistently stressed was the need for construction, furnishings and equipment that are easily handled and that withstand usage.

Frequent references were made to the need for more locker and wash-

room space for employees. In the large unions, more employee dining room and recreational space also is required.

Seemingly too little thought has been given in the planning of unions to the end that certain areas can be closed while other parts of the building continue to operate, such as ballroom, bowling areas and guest rooms.

STORAGE

An urgent plea for more storage space was made by 56 per cent of the union directors responding. As one respondent said: "Plan the storage space you think you will need and then double it."

Frequent reference was made to the need for storing chairs, tables and other equipment in or near the ballroom.

CHECK ROOM

If it could all be gone over again, 23 per cent of the union directors would try to get more and better planned check room space. The question arises as to whether additional check room space should be of the attendant, walk-in, self-service or locker type. The surprising reluctance on the part of students to use the attendant type of check room is leading many directors to consider the other types mentioned.

GAME ROOMS

Twenty-three per cent of the men responding had suggestions on game rooms. They should be planned large and capable of expansion. Unless soundproofed, these directors suggest that game rooms be located away from the food service areas, the music room, card room and social rooms. More and more attention must be given to facilities for bowling.

MEETING ROOMS

Another 23 per cent joined in a plea for additional meeting rooms, particularly for those seating from 15 to 25 persons. Folding partitions would permit greater flexibility.

LOUNGE

Comments on the lounge areas came from 23 per cent of the directors answering the questionnaire. Some recommended a number of small, informal, functional lounges; others asked for staff lounges; one was troubled because the lounge was frequently upset for lectures and concerts, and one emphasized that stu-

dents read in lounges and, therefore, proper reading illumination should be provided.

ADMINISTRATIVE SPACE

Some 20 per cent of the respondents submitted suggestions on administrative office facilities. Most of them complain of inadequate space. The trend of thought in regard to large unions seems to be to locate the administrative offices away from the noise and confusion, either on the second floor or at the end of a wing on the first floor. The smaller unions, on the other hand, want these offices at the nerve center of the building for better supervision and administration. All agree that, insofar as possible, the administrative offices should be grouped, such as those of the director, bookkeeper, food supervisor and program staff.

BALLROOM

There seemed to be two consistently voiced warnings in regard to ballrooms: (1) the ballroom should be flexible as to its use; (2) there should be chair and table storage space in connection with it.

The ballroom was seen generally as an all-purpose room with a stage, projection booth, removable seats and accessible dressing rooms.

WORKSHOPS

Some 17 per cent of the respondents stated that new buildings should include one or more arts and crafts shops.

RESTROOMS

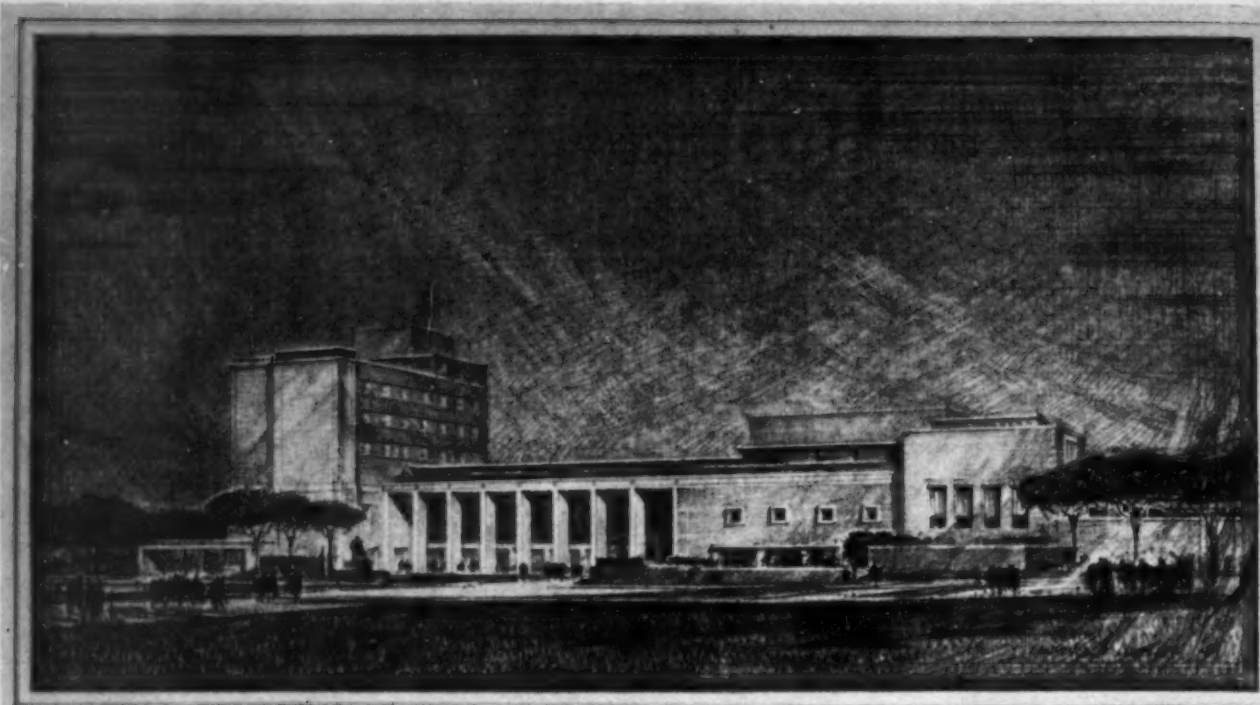
Another 17 per cent recommended more restroom facilities for both public and employees.

STUDENT ACTIVITY OFFICES

There were 10 per cent who recommended ample office space for student activities. The fact that so few suggestions on this point came in would indicate that the architects and associated planners in recent years have given sufficient consideration to this point; either that or the need for this type of space is not as pressing as some might think.

SPECIAL FACILITIES

A fifth of the respondents gave suggestions for various types of special facilities such as soundproofed piano rooms and more recreational areas for mixed groups.



Erb Memorial Union, Oregon

Union Building FOR A STATE UNIVERSITY

IN THE DEVELOPMENT OF A CAMPUS for any college or university a number of special problems present themselves, but few problems contain such an array of factors requiring close integration as does preparation of a program for a student union building.

The chief functions of such a building fall into six divisions (See table 1). It becomes the task of the architects and their consultants to incorporate all functions into a working plan that will require a minimum of personnel for operation of the completed plant.

When the administrative officers of a college find it desirable to add a union building to their campus, they naturally first draw on their personal experience and then investigate similar buildings on other campuses. In the case of the University of Oregon, I was given the problem for program development, in addition to the preparation of plans necessary to meet the particular needs of the proposed Erb Memorial Union. The building is to be named after the late Dr. Donald M. Erb, former president of the University of Oregon.

WILL V. NORRIS

Professor of Physics and
Consulting Engineer
University of Oregon

The first approach was through literature on the subject. On examination it was found that the library could furnish only one source of real importance, "The Handbook on College Unions" by Edith O. Humphreys.

Table 1—Areas of Student Unions

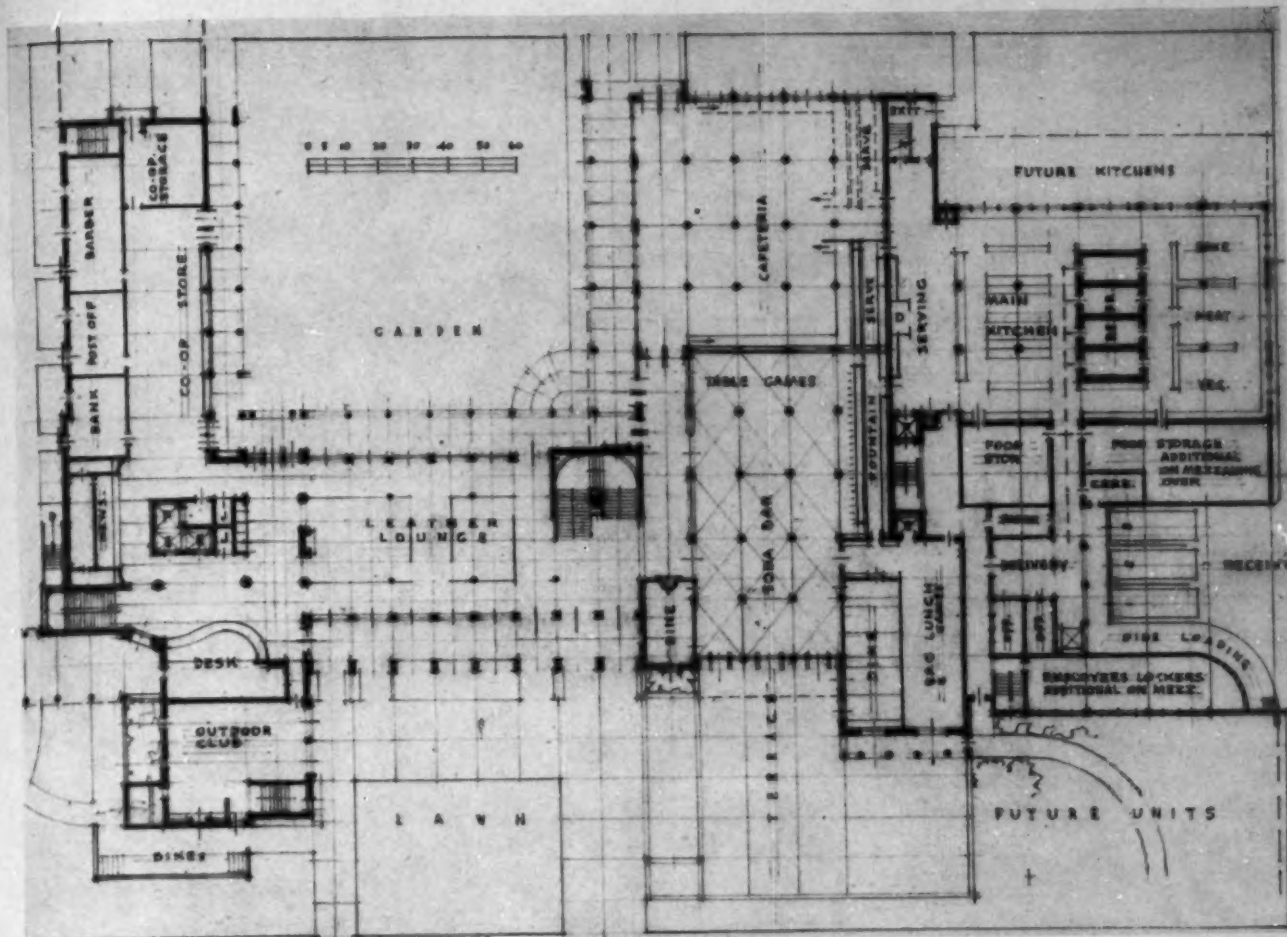
SOCIAL AREAS: Dances, concerts, meetings, lounges, sun room.
INTELLECTUAL AREAS: Music rooms, art displays, browsing library, hobby shop.
GAME AREAS: Bowling, billiards, table tennis, small games, outdoor club.
FOOD AREAS: Soda bar, cafeteria, tavern, luncheons, banquets, boy lunch.
ACTIVITY AREAS: Students' organization offices, alumni offices, staff offices.
SERVICE AREAS: Resident room, co-op bookstore, check rooms, barber and beauty shops, bank, post office, toilets, lost and found, telephones, telegraph.

Trips were made to many other colleges and universities to obtain information. It was in some of the smaller institutions that the personal problems of directors proved most valuable. I should advise others in studying college unions to include Cornell University, University of Illinois, University of Wisconsin, University of Michigan, University of Minnesota and not to forget Colorado State College, the University of Florida and the University of Texas. There is a host of smaller but excellently operated plants.

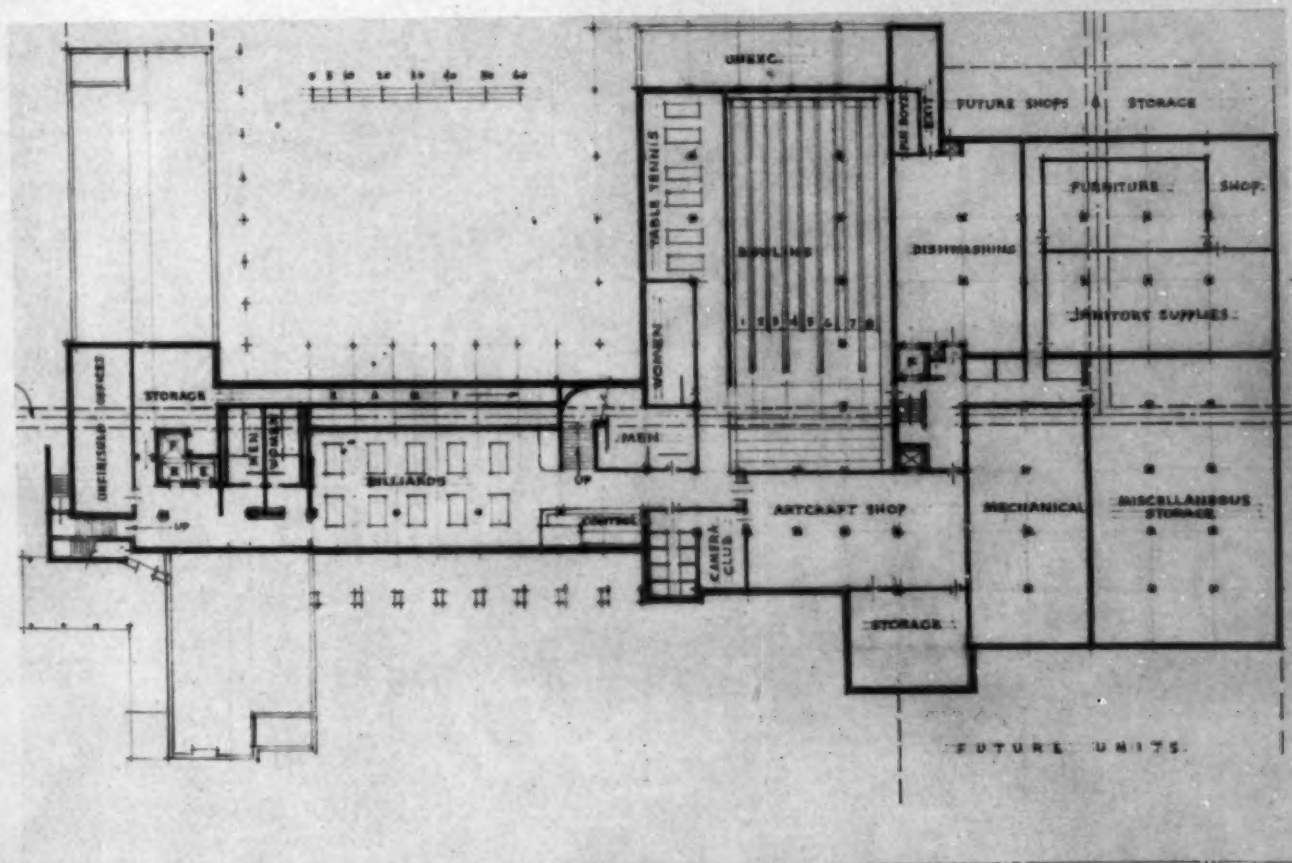
Three types of information were sought from each campus visited. These were: (1) physical facts, such as floor plans, architectural specifications and developments planned for future growth; (2) serious defects in present plants and suggestions for their correction; (3) outstanding features of each building.

It was reasoned that those factors not falling into either the second or third class would normally be satisfactory.

Out of this cauldron of facts an ideal building was envisaged which eliminated the bad features found else-



GROUND FLOOR



BASEMENT PLAN

where but included the good points discovered. It is a task to determine what functions must go into a building, but how much of each is even larger in scope and importance. As a result, information was compiled on the square footage of floor areas, capacities, costs and construction details of each function. These were then reduced by a ratio of the student body size to that of the expected capacity of the University of Oregon at 6500. By a similar procedure one can adapt this ideal program to his own institution.

After such comparison, local factors as presented on the campus must be given adequate consideration. As an illustration, the ideal plan called for bowling alleys. While they certainly should be included in a college union building, duplication would be foolish if such facilities were provided elsewhere on the campus. The same analogy would apply to almost any other primary function in the program.

After obtaining this adjusted ideal program (table 2), it was then checked with our architects, Lawrence, Wallmann and Tucker of Portland, and our consultants, Porter Butts, director of the Wisconsin Union, and Hare and Elder, architects for the American Association of College Unions in New York City. I revisited several schools to consult with directors and complete the comparison of the ideal program with their existent physical plants.

TWELFTH PLAN ACCEPTED

Twelve progressive plans were developed by the architects, each being tested against program and other essential factors. The twelfth and final scheme brought us nearest to our ideal. At one time we had everything included in what appeared to be a highly successful plan but discovered it required five points of control. This would mean that not less than five administrative or semi-administrative persons would be at work at all times the building was open. Restudy reduced this to three, which is a minimum for a building of this size and containing all six basic functions covered in table 1.

The Erb Memorial Union will be of modern architecture but will be blended into present architectural style by the use of similar materials, an important operation in itself. The building is of the conventional structural steel and concrete type with brick ex-

Table 2—Ideal Program for University of Oregon

FUNCTIONS	Total Area Sq. Ft.	1st Unit Area Sq. Ft.	REMARKS
Apartment, manager's.....	600	600	
Adm. union, offices.....	1100	1100	Central location
Adm. mimeo and work space.....	100	100	Next above
Alumni offices.....	900	900	Near lounge
Alumni records.....	900	900	Near offices
Art display area.....	1000	1000	
Art supply (storage).....	250	250	
Bank.....	400	400	Requires vault
Banquet room A.....	2500		
Banquet room B.....	1800	1800	
Banquet rooms C.....	1200	1200	Two rooms
Barber shop.....	525	525	
Barber storage and shine.....	50	50	
Beauty shop.....	750		
Billiards.....	2000	2000	
Bowling alleys.....	5000	5000	Eight alleys
Bowling room lockers.....	400	400	Men and women
Bowling control desk, candy counter.....	200	200	
Cafe grill.....	1248	1248	On top building
Cafe-grill kitchen.....	512	512	
Cafeteria, serving.....	2200	1400	
Cafeteria, table space.....	5000	2500	
Cafeteria, small dining rooms.....	900	900	Three rooms
Camera club.....	600		1st unit, if possible
Candy counters.....			With other functions
Coat rooms.....	2700	1300	Properly located
Committee room A.....	1200	1200	120 persons
Committee room B.....	750	750	75 persons
Committee rooms C.....	1050	1050	3 rooms of 35 each
Committee rooms D.....	1050	405	7 rooms of 15 each
Co-op (bookstore).....	10000	1000	Branch in 1st unit
Corridors (15% approx.).....	34650	25745	Reduce if possible
Delivery service area.....	1200	1200	Under cover
Dishwasher.....	2000	2000	Central location
Dormitory, men.....	1500		One room for 25 beds convertible to a committee room
Dormitory, women.....	1500		Same as above
Dressing rooms, help.....	1250	1250	Separate for full-time, part-time help
Desk, main.....	200	200	Newspapers, candy, and general service
Elevators, freight.....	600	600	
Elevators, passenger.....	1200	600	
Faculty area.....	15000		Future development
Games, small.....	500	500	Near tavern
Garage.....	1600		Eight staff cars
Garbage, wet and dry.....	500	500	Freeze wet garbage
Hall, dance.....	14700	7450	Main ballroom
Hobby shop.....	4000		Part in 1st unit if possible
Information desk.....	150	150	With main coat room
Janitor rooms.....	480	240	Well located
Janitors' supplies.....	500	500	In basement
Kitchen, main.....	3600	2400	
Kitchen, bakery.....	600	600	
Kitchen, service.....	2000	1000	
Kitchen, meat cutting.....	250	250	Cooled
Kitchen, vegetable.....	350	350	Preparation
Kitchen, refrigeration.....	800	800	
Kitchenettes.....	150	150	In banquet rooms
Library.....	3400	3400	Browsing type
Little theater.....	6500		Provide future location
Linen rooms.....	500	500	
Lobby, main entrance.....	1200	1200	
Locker room.....	250	250	
Lost and found.....	60		With information desk
Lounge, common.....	2000	2000	
Lounge, leather.....	1000	1000	Near game area
Lounge, help.....	600	600	Two, men and women
Lounge, powder.....	600	600	With cats, women
Lunch, bag.....	750	750	Near tavern
Mechanical rooms.....	3000	2000	
Music rooms.....	800	800	Two rooms
Offices, staff.....	480	480	Four rooms
Offices, student activities.....	960	960	Eight rooms
Offices, student organizations.....	1000	1000	Ten rooms
Office, ticket.....	150	150	Central location
Outdoor club.....	1500		Separate entrance
Paraphernalia (files).....	150	150	Near student offices

Table 2—Ideal Program for University of Oregon, Cont.

FUNCTIONS	Total Area Sq. Ft.	1st Unit Area Sq. Ft.	REMARKS
Pin boy room.....	250	250	End bowling
Post office.....	500	500	
Radio and P. A.....	50	50	
Repair shops.....	1850	800	Four, carpenter; mechanical, paint and general
Resident rooms (120).....	25080	8360	Forty in 1st unit
Resident room, trunk storage.....	450	150	
Resident suite (guest).....	500		
Soda bar.....	400	400	
Soda bar service.....	500	500	
Storage rooms.....	15000	5000	Not less than 5% on any floor, but 20% total
Sun porch.....	1800	1800	
Table tennis.....	1000	1000	
Tavern.....	3100	3100	Food service
Toilets (15).....	2400	1600	Men and women
Telephone booths.....	80	80	Ten
Union board room.....	375	375	Choice location
Western Union.....			Main desk
Writing areas.....	200	200	
Construction.....	21460	11518	10% of above
TOTAL.....	236,060	126,690	

terior veneer and stone trim. The interior, as well as the exterior, will be as fire resistant as reasonable. Tile or solid plaster partitions, steel doors and windows, fire resistant paints and glass

fiber draperies will keep combustible items to a minimum.

Floors are to be rubber tile, asphalt tile and ceramic tile, with hardwood on the dance areas. All public rooms

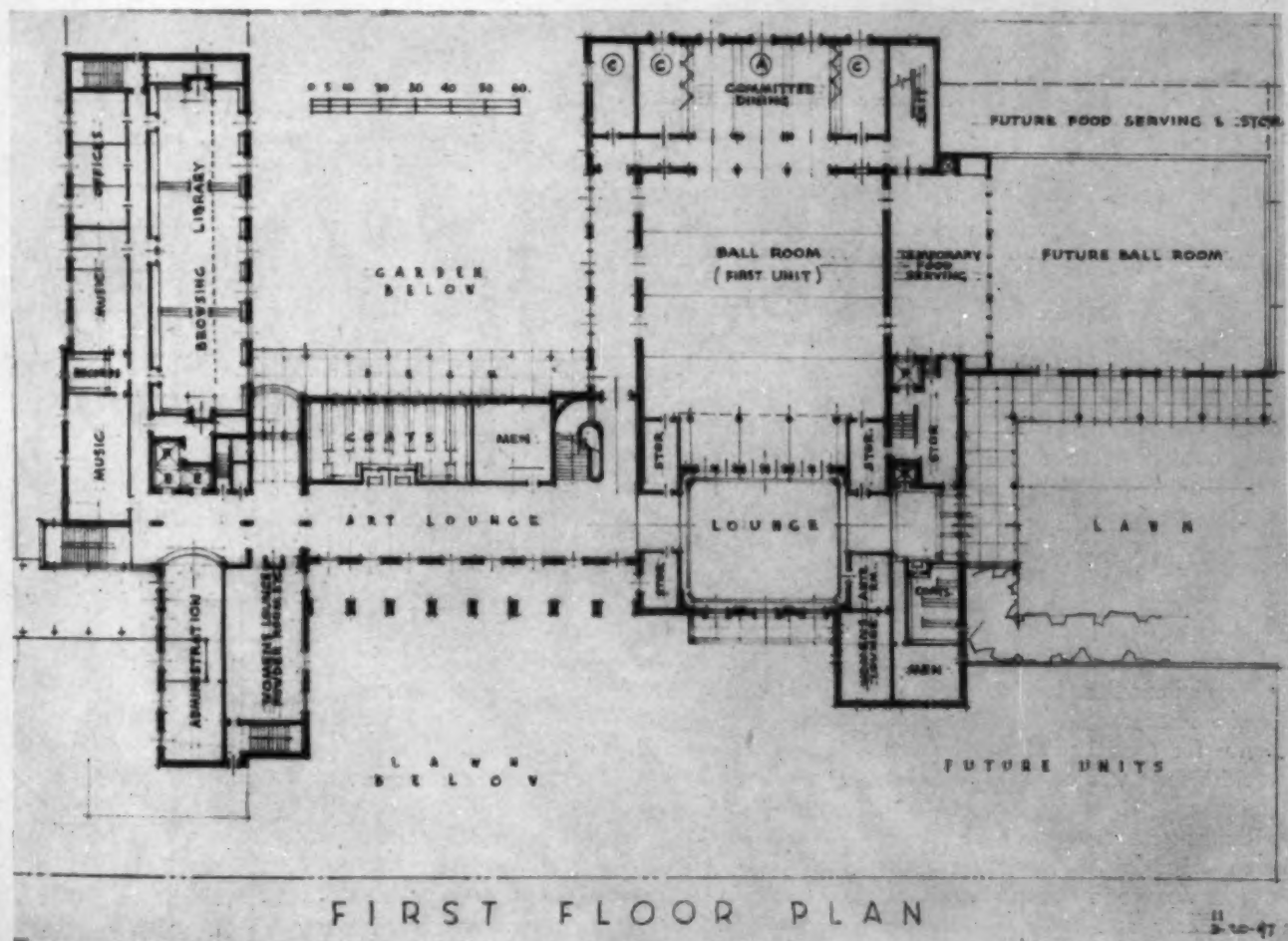
are to be given acoustical treatment. Heating is to be a combination of hot water and circulating air. The main public areas are to be air conditioned by the use of electromatic filters, water-type cooling and partial recirculation.

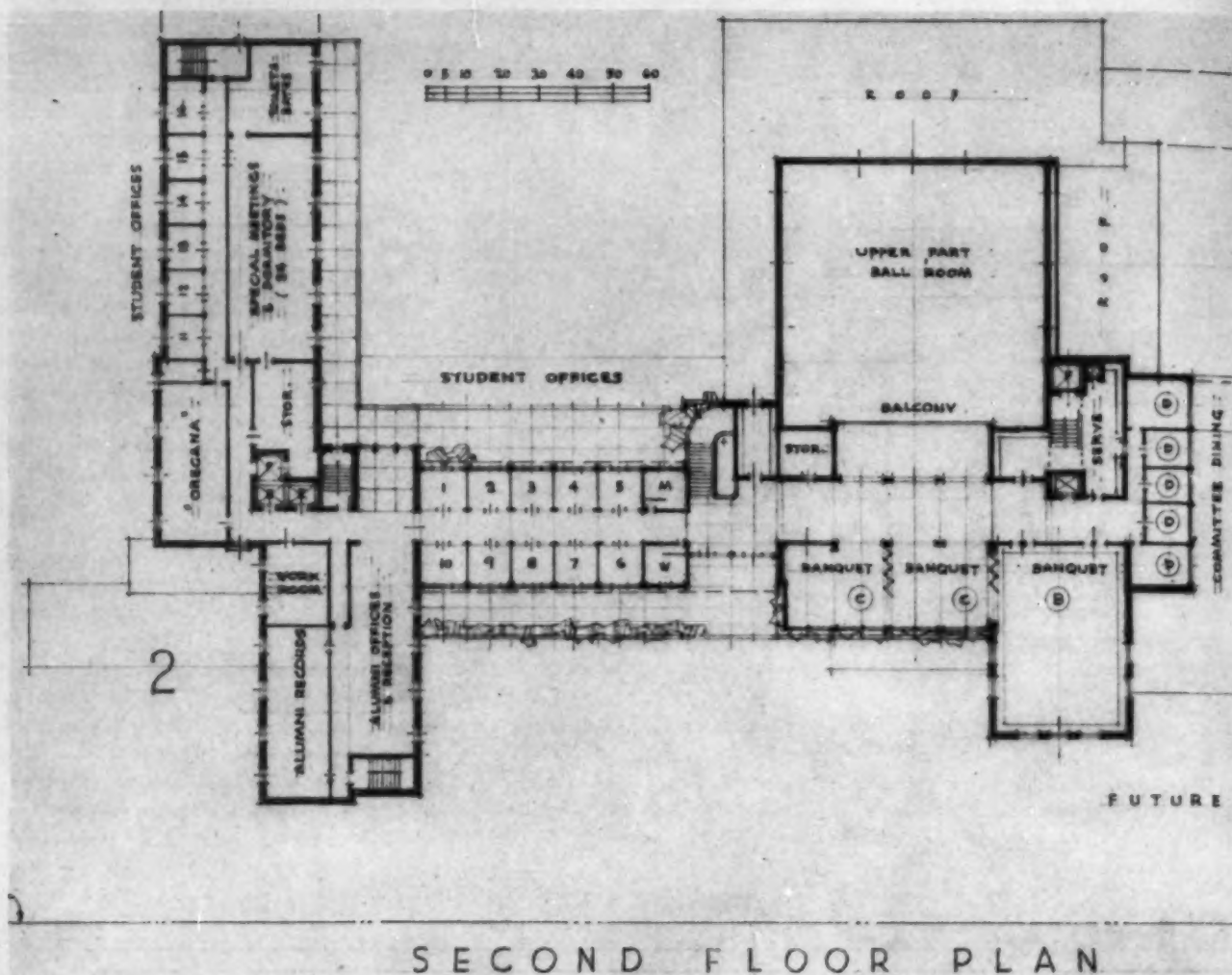
The kitchen, ultramodern in every detail, will supply service to all food divisions. Refrigerators of the walk-in type will be available for each type of food: cut and uncut meats, vegetables, dairy products, ice cream, frozen foods, leftovers. Garbage disposal is of primary importance to good operation.

Conveyers to a central dishwashing room will be used and sufficient dish storage will be provided to make the reuse of a dish unnecessary during any meal. This has the effect of extending the time for washing dishes, but it requires less staff and prevents peak loads at mealtimes.

Special lighting is planned for the entire building. It will be primarily incandescent. Ballroom lighting, such as at Minnesota, will be used to reduce the amount of decoration necessary.

The program calls for a bank, a service not usually found in college





unions. However, the need is vital and important. A complete list of the various functions will be found in table 2 as only the highlights are given here.

By the extensive use of regular telephones operating from an automatic dial board, an additional intercommunicating telephone system is unnecessary. A good public address system is essential, however, not only for personal calls but to "pipe" music and other programs to different rooms.

TOP FLOOR HAS GRILL

An outstanding feature of this building will be the café-grill on the top level. It is strategically located to provide an excellent view of the countryside. Here one will find fine table service for special parties as well as facilities for entertaining friends and family.

Resident rooms are essential to any union. Not only do they bring a visitor into close contact with campus life, but an easy and accessible meeting

place for student and family is provided. The feeling of familiarity with campus associations is not lent when off-campus accommodations are found necessary. Meetings are easier to schedule for out-of-town guests; the union benefits by their presence.

It is found that food service is of primary importance to union operation. In addition to the regular kitchen, it is desirable to maintain several kitchenettes in which small groups can prepare individual party refreshments.

Much time and laborious effort have been spent in evaluating functions for the new building. The primary idea is to have sufficient functions so that all students can find something of interest.

It will be noted that the present plans do not include all of the original program. Those items omitted will be added later. As an illustration, the little theater, a second ballroom and two-thirds of the residence room were deferred. Provisions are made for

their addition. It must be emphasized that adequate planning for future expansion is an important duty of architect and consultant in their original study. It is generally agreed among directors that most union buildings are too small by the time they are completed and that no adequate provision has been made for their future growth and expansion.

Naturally, any school is influenced by the amount of its available funds, the University of Oregon is no exception. If high construction costs continue, then certainly a part of the present plan will be deferred until a later date.

Although adequate study is required by local architects in the development of a college union building, professional advice of men with extensive experience in the operation or in the design and planning of a union building is of paramount importance. The University of Oregon will certainly profit by the three-years' effort spent in planning Erb Memorial Union.

Union Building FOR A SMALL UNIVERSITY

H. H. BROOKS

Comptroller, DePauw University

STUDENTS AND ALUMNI OF DEPAUW University were polled early in 1945 as to what they would most desire on campus as a memorial to the 104 former students who lost their lives in World War II. The overwhelming reply was a college union building.

In response to this expression, committees were organized and started work. I conducted a thorough inspection of a large number of union buildings, both large and small, throughout the Midwest, with the hope that DePauw, a small liberal arts college with an enrollment of from 1500 to 2000 students, would be able to erect a union that would adequately serve the needs of our campus.

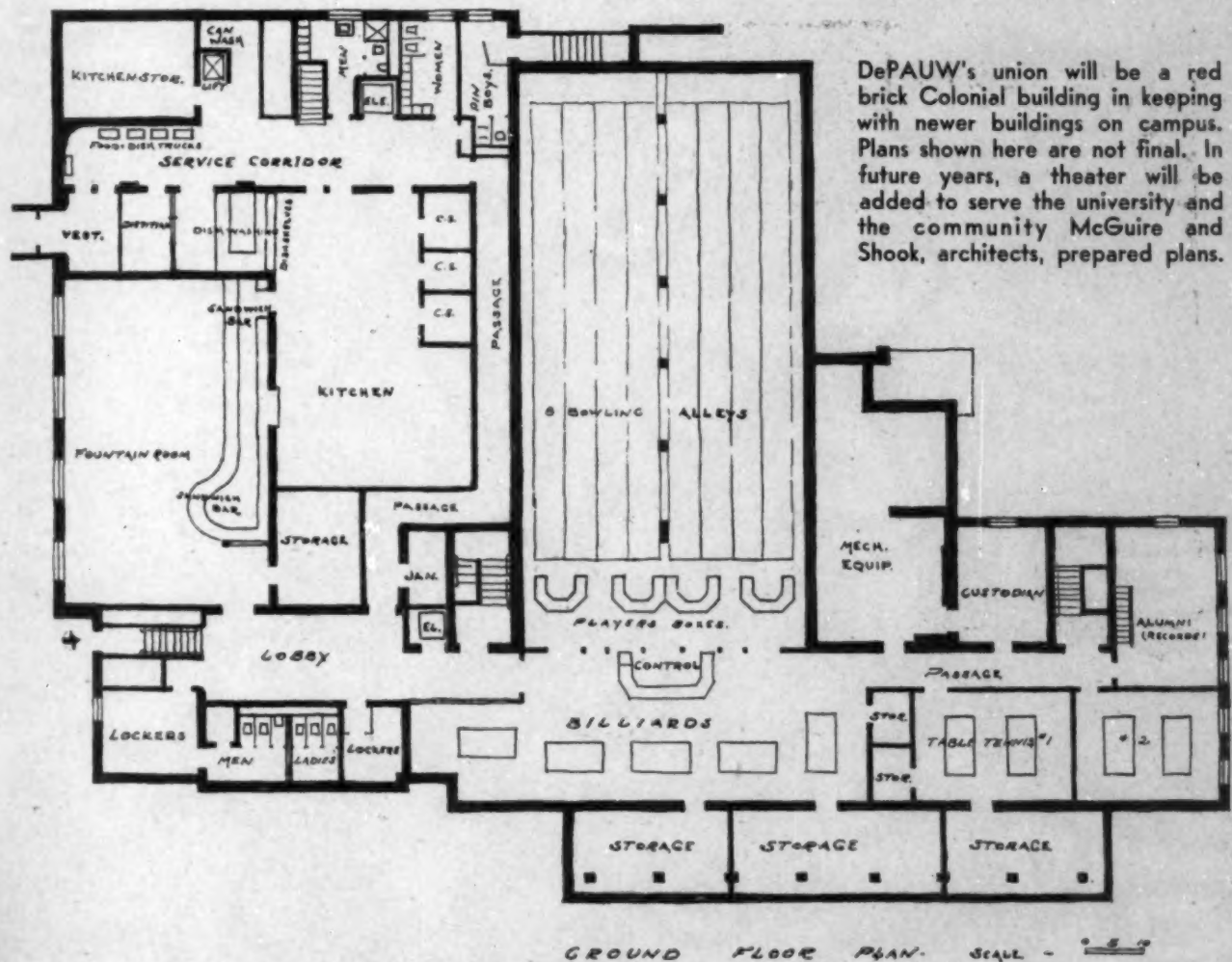
The site chosen was a corner location on the central campus where future expansion can be easily handled and where all sides of the building will have equally good views and can be treated well architecturally.

The choice of site is of utmost importance, as it is imperative that such a building be located in the center of student traffic. Ours is immediately across the street from the women's quadrangle, consisting of three large dormitories, and in the same block with four sorority houses. This site has the additional advantage of being near existing heat lines from the central heating plant. Too, it is across the street from the gymnasium in

which all university dances, including the junior and senior proms, are held.

Our original structure will incorporate as many desired features as are financially possible at this time. These will be a memorial hall, reception room and main lounge, faculty lounge, ballroom, private dining rooms, a fountain room, bowling alleys, game rooms, craft shop, music rooms, complete radio studio and projection room, student committee rooms, offices for the alumni association and the union director and guest rooms for alumni.

The architecture of the building will be red brick Colonial of fire-resistant construction in keeping with the later buildings erected on the campus. An



Half a story below ground, we plan to have our large kitchen and food receiving, storage and refrigeration rooms. These rooms will be equipped to handle simultaneously two banquets of a thousand persons each, one in the gymnasium and the other in the union building. A large traffic and service tunnel under the street will connect the two buildings. We find this need urgent on special occasions, such as Old Gold Day, Dad's Day and Commencement.

On this ground floor also will be the students' "hang-out," incorporating a soda fountain, sandwich grill, hot lunch bar, and room and tables for cards. In addition to eight bowling alleys, six billiard and pool tables, table tennis and other game rooms and the alumni office, we plan to install generous storage rooms on this level. On the first floor will be the ball-

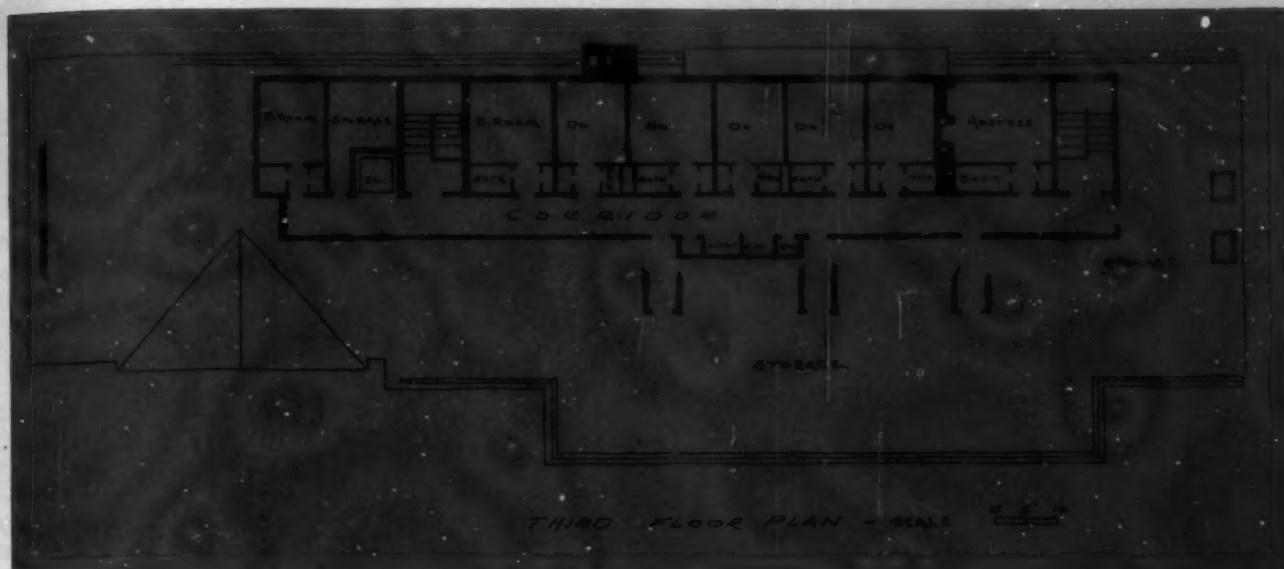
If necessary, the gym may be used to expand the union facilities in the event of an extremely large social function. Here again, the tunnel will prove its value by making available the union's check rooms, powder rooms and refreshment facilities. The fact that the private dining rooms will open on an outside terrace, 75 by 50 feet, will enable the union, in clement weather, not only to accommodate large dances but to lend atmosphere to such functions as well.

The remainder of the rooms on the first floor will consist of a memorial hall, the faculty lounge, music listen-

In view of the fact that each fraternity and sorority house on campus and each men's and women's dormitory has a large lounge, the student union lounge will be of moderate size. It seems unnecessary to us to duplicate space that may better be utilized for more important needs. This feature may be somewhat of an innovation as the unions I saw on my many trips have extensive lounges.

The walls of the main corridors, reception room and lounge can be used for art exhibition purposes in conjunction with our department of fine arts.

DePauw being situated in a small community, 40 miles from a city, students are likely to have many outdoor picnics and steak roasts in nice weather. Therefore, we anticipate large use of the outdoor terrace that opens onto the central campus. A very large and completely equipped grill will be



installed so that students do not need to leave campus for their picnics; the convenience of this feature is expected to increase the use of the union building itself.

On the balcony at one end of the ballroom will be a complete radio studio, containing motion picture projection rooms. On the second floor, also, will be student committee rooms, made flexible in size by the use of folding partitions, and a special room for the student governing board.

We plan to carry the open fireplace idea throughout the building. In addition to the large outside grill on the terrace, we shall have a large open fireplace in the lounge and in one of the meeting rooms on the first floor

and this facility will extend up to the second floor to the student government room and to the large room for receptions and parties. The master hotel suite on the third floor will also have a fireplace.

A craft shop, approximately 1000 square feet, and rooms for the union board and union president will be located on the second floor.

Ten guest rooms for overnight guests will be located on the third floor. The choice of the number of guest rooms was a difficult one, as the community does not have adequate hotel facilities. However, we did not have the funds for a greater number of rooms. Studies of other union buildings show that these rooms are not

used to full advantage from Monday to Friday. We felt that the union building should not have empty facilities during the larger part of the week. An additional wing of guest rooms can be provided above the private dining rooms if found necessary.

As union buildings grow in size rapidly, it is our intention to add a large theater unit in future years; this not only will accommodate our dramatic department but also will enable the university to service more community functions and to bring more outside conferences to the campus.

The total cost of the building is estimated at \$475,000. Actual construction is expected to begin in the 1948-49 school year.





Northeastern's new student center

Union Building FOR AN URBAN UNIVERSITY

EDWARD S. PARSONS

Director of Student Activities
Northeastern University, Boston

"NORTHEASTERN IS AN URBAN UNIVERSITY with 80 per cent of its 3600 daytime students coming from home to the university for the entire day, yet they are in class only a part of that time. It is for this reason that this Student Center Building has been constructed: to serve exclusively the welfare of the students in their *out-of-class* activities. And now I dedicate . . .," said President Dr. Carl S. Ell at the dedication of a gleaming new \$1,225,000 building last October 5.

Dominant in its central position on the 8 acre campus, the new Northeastern University building on its spread footing foundation has a steel frame with reinforced concrete floors. Exterior walls are faced with white glazed brick. Steel casements with the continuous glass running from the roof to the first floor are set in 18 inch reveals, giving the building an impressive columnar appearance. The center was designed by Architect Francis V. Bulfinch of Coolidge, Shepley, Bulfinch and Abbott not only to blend with its sister buildings but also to be a credit to Boston's Back Bay.

Entrance to the structure leads directly into a large oak paneled lobby.

To the right is the student activities' office where faculty advisers are readily available to students. Adjoining the activities' office and also accessible through an entrance in the lobby is the medical suite with physician's office, examining room, nurse's office and dispensary. To the left is an attractively furnished guest lounge; beyond, a modernistic lounge for women students.

Adjacent to the main building and entered through its spacious foyer and concourses is the auditorium with a seating capacity of 1300 and a stage suitably appointed and equipped for lectures, meetings, concerts and dramatic productions.

The university commons, bookstore, women's physical education center, faculty lounge and student recreation room are well spaced facilities available on the ground floor.

Striking in its simplicity and dignified beauty, the chapel is located in the heart of the building. Pews on either side of a crimson carpeted central aisle and the chancel, containing a projected pulpit and raised lectern, are finished in light oak. The altar with its hand-wrought pieces is centrally placed at

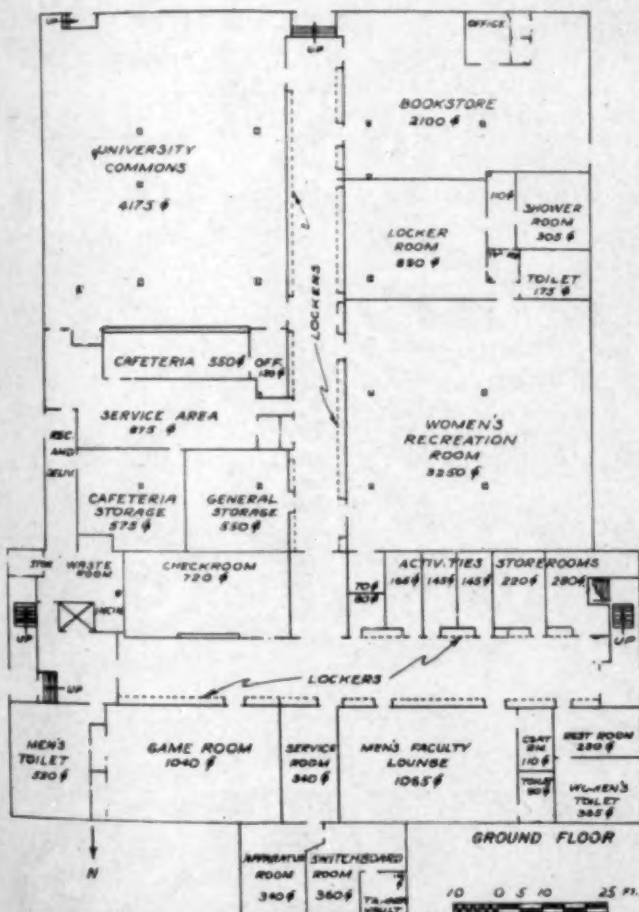
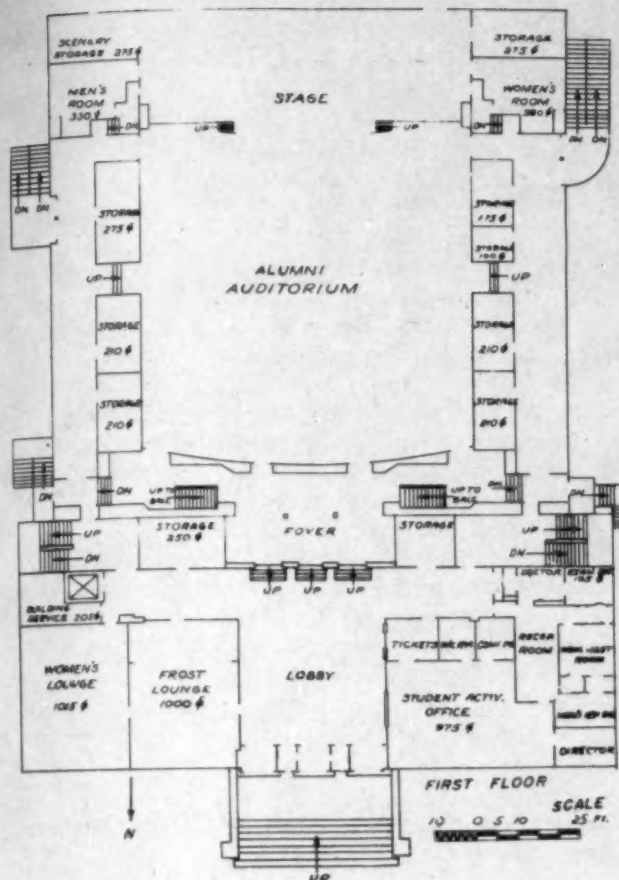
the rear of the chancel under a red and gold brocaded dossal. Choir stalls face an organ console across the chancel, and appropriately designed chairs are provided for the clergy. Lighting has been thoughtfully arranged to produce a quiet, meditative atmosphere.

This unusual and significant part of the center with its capacity to seat 250 fulfills a need long felt by Northeastern. Also on the second floor are spacious, comfortable student lounges and the student union office.

Featured on the third floor, in addition to offices and workrooms for student publications, is a large dramatics rehearsal stage complete with draperies, curtains and lights. Two assembly rooms, also available for dinner or luncheon meetings, have a caterer's room adjoining. Completing the facilities on this floor is the Camera Club's darkroom.

Only on the fourth floor are students reminded that they are still in school. There, besides a large rehearsal area for musical clubs, are classrooms and a lecture hall.

Flooring throughout is asphalt tile in various patterns. Pendant and flush fixtures reflect light against acoustically

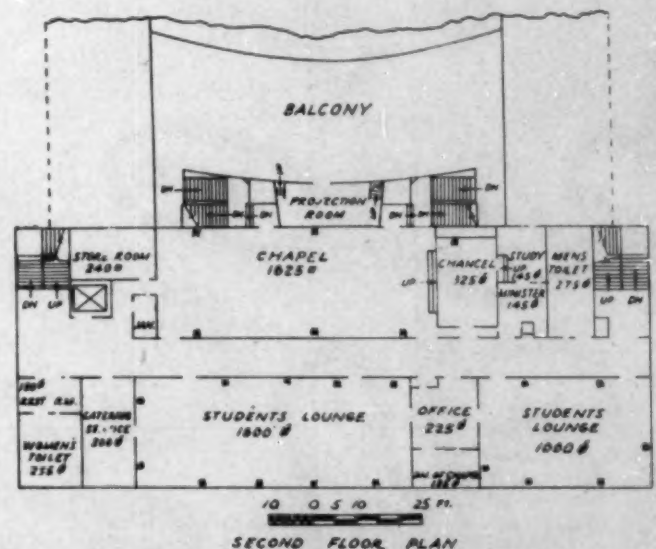
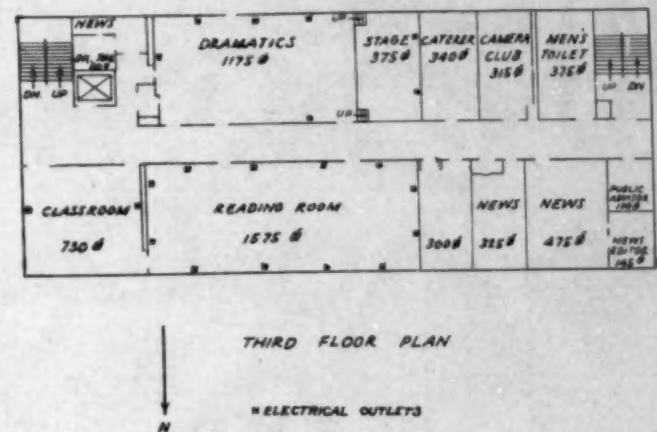
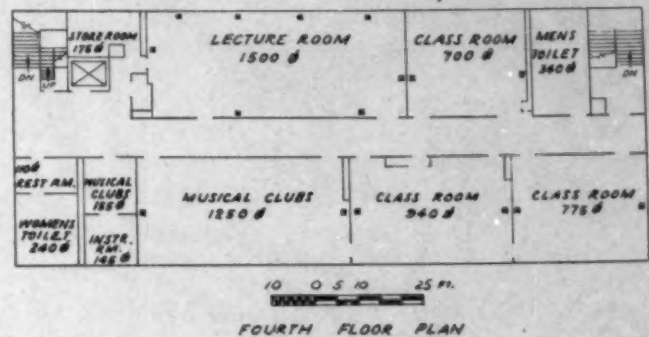


DAY STUDENTS need a campus hangout. Since Northeastern's student center building opened last fall, student morale has climbed.

treated ceilings in all parts of the building. Heat is purchased from the Edison district heating system. Auditorium, chapel and classrooms are ventilated by both a central system and individual units.

Interior walls of plastered cinder block are buff with the lower portion of corridor walls painted maroon and highlighted by a horizontal silver strip between the two colors.

Increase in student morale in the brief time the center has been in use has more than justified the generous allotment of space to student lounges and facilities for student activities.



HOLD THAT *Price* LINE!

College unions actually have held it

THE QUESTION THAT CONCERNS THE American people more than any other these days is high prices, a recent Gallup poll indicated. The change in family savings and economic welfare has made the difference between college attendance and staying at home for many young people. Across the country predicted enrollments were not realized last fall; the higher cost of living has been given as a major reason.

In this general inflationary setting, what is the trend at college unions?

A study made recently by the Association of College Unions, based upon questionnaires returned by 24 unions of varying sizes in all parts of the country, shows that unions are materially slowing down the rise in costs for students. In many cases they are holding the line with no increases whatever.

In the period from October 1946 to October 1947, when the national cost of living index went up 10 per cent and the general retail food price indexes advanced 25 to 30 per

cent, the price of food in unions, when increased at all, rose only 8 to 10 per cent (in mass feeding units like cafeterias and fountain room). Charges for recreational activities, if any are made, have remained the same except for bowling rates in a few isolated cases.

A tabulation of union food service, prices and price changes appears in table 1. While studying this table, bear in mind the fact that student employe wages are up 14 per cent; full-time employe wages, 13.4 per cent,

TABLE 1—COLLEGE UNION FOOD SERVICE, PRICES AND PRICE CHANGES FROM OCTOBER 1946 TO OCTOBER 1947

UNION	FOUNTAIN ROOM		SET MEAL SELF-SERVICE			SET MEAL WAITER SERVICE			PRIVATE DINNERS		
	CAFE-TERIA										
	% Increase in Av. Prices		Av. Price Noon & Night			Av. Price Noon & Night			Av. Price (min.) Noon-Night		
	Oct. 1946 to Fall 1947		Oct. '46	Fall '47	% Incr.	Oct. '46	Fall '47	% Incr.	Oct. '46	Fall '47	% Incr.
A.....	25.0%	10.0%	\$0.48	\$0.60	20.0%	.....	.....	20.0%	.....	.....	50.0%
B.....	15.0	0.0	.....	.....	.....	\$0.84	\$1.00	19.0	\$0.84	\$1.00	19.0
C.....	15.0	25.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
D.....	12.5	12.5	.....	.....	.....	1.05	1.22	16.2	1.10	1.25	14.0
E.....	12.5	12.5	.43	.45	5.0	.65	.75	15.3	.65	.75	15.3
F.....	10.0	0.0	1.50	1.75	16.6	1.75	2.00	12.5	1.75	2.00	12.5
G.....	10.0	10.0	.58	.65	12.0	.65	.75	15.0	.65	.75	15.0
H.....	10.0	10.0	.38	.45	20.0	.....	.....	.....	.....	.....	15.0
I.....	9.0	10.0	.40	.44	10.0	.....	.....	.....	1.00	1.10	10.0
J.....	9.0	0.0	.55	.60	9.1	.....	.....	.....	.....	.....	.....
K.....	8.3	5.0	.43	.50	16.0	.45	.50	11.1	.....	.....	.....
L.....	7.5	1.2	.....	.....	8.3	.....	.....	12.2	.....	.....	.....
M.....	7.0	7.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
N.....	6.6	6.6	.55	.60	9.1	.73	.78	6.9	.83	.95	15.2
O.....	6.5	0.0	.....	.....	.....	.....	.....	9.0	.....	.....	10.0
P.....	5.5	0.0	.40	.45	12.5	.....	.....	.....	.65	.65	0.0
Q.....	0.0	2.0	.....	.....	.....	.50	.60	20.0	.75	1.25	66.7
R.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S.....	0.0	0.0(1)	.....	.....	.....	.....	.....	.....	.....	.....	10.0
T.....	0.0	0.0	.....	.....	0.0	.....	.....	.....	.....	.....	.....
U.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
W.....	0.0	0.0	.50	.65	30.0	.75	.85	13.3	.75	.85	13.3
X.....	.....	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....

Av. of increases made.... 10.3% 7.9% 14.0% 14.2% 20.5%

(1) Except milk shakes, which were increased from 15c to 20c.

Table 2—Advances in Utility Rates During Year of October 1946-47

UNION	% Increase in Rates, Oct. '46-Fall '47		
	Heat	Light	Telephone
A.....	0.0%	0.0%	0.0%
B.....	.....	.....	.....
C.....	13.0	.....	.....
D.....	10.0	0.0	0.0
E.....	.....	.....	.....
F.....	.....	No Charge	.....
G.....	0.0	0.0	10.0
H.....	No Charge	.....	10.0
I.....	35.0	20.0	15.0
J.....	0.0	0.0	0.0
K.....	.....	.....	.....
L.....	20.0	10.0	0.0
M.....	.....	.....	.....
N.....	1.0	0.0	5.0
O.....	0.0	0.0	.....
P.....	.....	.....	.....
Q.....	0.0	0.0	0.0
R.....	No Charge	.....	10.0
S.....	10.0	10.0	0.0
T.....	100.0	0.0	0.0
U.....	.....	No Charge	.....
V.....	.....	.....	.....
W.....	.....	.....	.....
X.....	.....	No Charge	.....

Table 3—Advances in Wages of Students and Full-Time Employees During Year

STUDENTS			Full-Time Employees
Rate per Hour (minimum)			
Oct. 1946	Fall 1947	% Increase	% Increase
\$0.40	\$0.50	25.0%	20.0%
.40	.40	0.0	.....
(1)	(1)	0.0	8.0
.60	.60 (2)	(See. 2)	32.5 (3)
.50	.50	0.0	.....
.60	.60	0.0	10.0
.45	.50	11.1	15.0
.50	.50	0.0	8.0
.58	.75	29.0	15.0
.65	.65	0.0	15.0
.35	.40	14.0	10.0
.45	.50	11.1	20.0
.50	.50	0.0	8.3
.55	.60	9.1	13.2
.....	.....	.....	10.0
.53	.60	11.7	15.0
.50	.50	0.0	4.0
.60	.60	0.0	15.0
(4)	(4)	6.0	10.0
.50	.50	0.0	15.0
.55	.60	9.1	10.0
.40	.....	.....	.....
.50	.50	0.0	0.0
.50	.50	0.0	0.0

Average rates..... \$0.505 \$0.540
 Average of increases made..... 14.0% 13.4%

(1) 2½ hours work for 3 meals. (2) Plus 25% discount on meals. (3) Average of rates of increase. (4) 2 hours work for 3 meals.

Table 4—Average Per Cent Increase of Each Dollar Received Spent on Raw Food During Year

UNION	CAFETERIA			FOUNTAIN			SET MEALS		
	Oct. 1946	Fall 1947	% Increase	Oct. 1946	Fall 1947	% Increase	Oct. 1946	Fall 1947	% Increase
A.....	56.0%	50.0%	-10.0%	45.0%	40.0%	-11.0%	.....	.....	.....
C.....	51.0	51.0	0.0	.....	.....	.....	45.0%	45.0%	0.0%
D.....	55.0	62.0	12.7	.....	.....	.....	.....	.....	.....
E.....	47.5	.....	.....	50.0	.....	.....	41.0	.....	.....
F.....	48.0	48.0	0.0	45.0	45.0	0.0	40.0	40.0	0.0
G.....	43.0	48.0	11.7	45.0	50.0	11.1	48.0	52.0	8.0
H.....	50.0	55.0	10.0	50.0	55.0	10.0	50.0	55.0	10.0
I.....	50.0	51.0	2.0	.....	.....	.....	.....	.....	.....
K.....	64.5	70.0	8.5	70.0	75.0	7.1	47.2	52.0	10.2
L.....	53.0	58.0	9.4	.....	.....	.....	56.0	60.0	7.1
M.....	41.0	56.0	36.1	.....	.....	.....	.....	.....	.....
N.....	57.1	55.5	-4.6	54.0	52.8	-1.2	47.4	48.5	1.1
P.....	58.3	62.2	6.2	49.6	60.4	16.7	.....	.....	.....
Q.....	60.0	60.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
S.....	45.0 (1)	54.0 (1)	20.0 (1)	.....	.....	.....	.....	.....	.....
W.....	55.0	.....	.....	49.0	.....	.....	47.0	.....	.....

Average Rate..... 52.15% 55.76% 51.76% 54.78% 48.16% 51.56%
 Average Change (increase)..... 7.29% 4.09% 4.55%

(1) Average of all services.

Dun and Bradstreet's wholesale food cost index has risen 31.3 per cent during the year. Supplies cost from 20 to 50 per cent more. Utility rates have advanced sharply; in one instance, 100 per cent (Table 2).

In five out of seventeen cases reported, or almost one-third, the university furnishes utility services without charge to the union. In many other instances where the university does charge, there have been no increases in the last year. Heat shows the steepest and the greatest number of increases.

The most prevalent rate of minimum student pay in both 1946 and 1947 is 50 cents an hour (Table 3). However, there are more 50 and 60 cent minimum rates this year than last.

Student wages have been raised, percentage-wise, slightly more than full-time wages. The percentage rise in student wage rates is 50 per cent higher than the increase in the costs of the cafeteria and fountain room meals he buys and the same as the rise in the cost of his set meals. Payment in the form of meals (versus cash), once common, has disappeared.

CAN'T OPERATE AT LOSS

A union, like any other self-sustaining enterprise, cannot operate long at a loss.

How, then, have unions held the line as well as they have?

A principal answer is found in the greatly increased volume of business resulting from swollen enrollments. A study of raw food costs (Table 4) shows that unions on the average have absorbed higher raw food costs during the year by letting their cafeteria raw food percentage rise to 55.76 per cent, as contrasted with the 50 per cent usually considered maximum for sound cafeteria operation. Fountain room food cost per cents averaged 54.78 per cent compared to the 50 per cent standard. Set meal service per cents averaged 51.56 per cent compared to the standard 40 to 45 per cent.

In the case of each type of dining service, the raw food per cent is substantially higher than a year ago; cafeterias are 7.29 per cent higher; fountain rooms, 4.09 per cent; set meals, 4.55 per cent.

Another major explanation of the union's ability to perform solvently without much repricing lies in the automatic increase in union student fee receipts accompanying increased enrollments. This additional revenue,

resulting again from volume rather than price increases, has been extremely helpful in covering increasing overhead, program, utility and general operating costs.

As important as any other factor, however, has been the desire of university and union to hold the line.

The benefits of larger enrollment and business volume would have meant nothing to students (as they haven't to many groups of consumers) if the benefits had not been applied to holding the price line but had been diverted to other purposes.

The influence of the union on college living costs cannot be measured by what happens in the union alone. University administrations are increasingly aware that the prices established by the union substantially govern the level of prices elsewhere in the whole college community. In view of the very moderate changes that have been made by unions in the last year, it is safe to say that the 150 unions of the country are literally making it possible for thousands of students to continue college work who otherwise would have to drop out.

HOW VETERANS MAKE ENDS MEET —OR DO THEY?

VETERANS ATTENDING AMERICAN colleges have requested Congress to increase their monthly allotments so that they may remain in the classrooms despite skyrocketing living costs.

Part of a survey on veterans' education made by the American Council on Education and financed by the Disabled American Veterans dealt with the cost of living of a representative cross section of veterans attending colleges and universities.

To determine how much of differential exists between the \$65 and \$90 monthly subsistence payments and their actual living expenses, veterans were asked to make a careful estimate of their average monthly expenses while attending school.

Results indicate that the average monthly expenses of single veterans in colleges are \$106.13; of married veterans, \$175.38. This means that single students spend \$106.13 monthly but receive only \$65, a difference of \$41.13. Married students spend \$175.38 but receive only \$90, a difference of \$85.38.

Board and room in combination costs single veterans \$55.19 a month on the average. Those who have to eat out spend \$51.08 for meals alone. This added to the \$21.48 average room rental brings the monthly cost of room and board to \$72.56.

Married students, according to the poll, spend \$38.96 for rent, on the average, while their outlay for food is \$67.71, or \$106.67 for rent and food.

To make ends meet, many veterans work during school terms, and a great number of the wives of those married hold full time or part time jobs. Six out of ten veterans worked to some extent last summer but many of the married men were unable to save any of their summer earnings because they made only the living expenses of their families.

Many of the single veterans were in a better position financially when school opened last fall since 40 per cent were able to save up to \$250, while another one fourth set aside more than \$250.

Wives of 56 per cent of the married student veterans are working to supplement their husbands' incomes, the survey disclosed; 43 per cent are employed on a full time basis, 9 per cent on a part time basis and 4 per cent work intermittently.

More than a third of the veterans have no reserve savings upon which they can draw to continue their education. Forty per cent of the married veterans, in fact, have no savings whatsoever. Half of the disabled married veterans have no financial reserves to supplement their income.

Oregon provides its own coverage for LOSSES FROM FIRE

J. O. LINDSTROM

Business Manager, University of Oregon

THE STATE OF OREGON OPERATES ITS own insurance program covering loss by fire of buildings and property owned by the state. All insurable property owned by the University of Oregon and other state institutions of higher learning under the control of the Oregon State Board of Higher Education is included in this self insurance program, with these three exceptions.

1. Buildings financed through bond issues wherein the bond agreement provides that commercial fire insurance shall be carried.

2. Buildings that will not be restored in case of destruction by fire.

3. Single structures where the amount on hand in the State Restoration Fund is less than the replacement value of the building and in which there might be some doubt that the state legislature would appropriate the necessary funds for replacement inasmuch as the original structure was not built with state funds.

An example of the first exception would be the men's dormitory and the university library, which were financed by bond issues. Exception 2 pertains to buildings such as private homes acquired when land has been purchased for future campus expansion. Exception 3 is illustrated by one of the university dormitories financed by a bond issue of which all bonds have been retired.

ADVANTAGES OFFERED

The State of Oregon Restoration Fund was established originally in 1925 and has been amended several times. In general, the terms of the act, as amended, provide that an appraisal be made as of June 30 each year of all state owned property, including buildings, supplies and equipment. This appraisal becomes a basis for assessing the various state departments; the total assessment, which at present amounts to \$100,000 annually, is allocated to the several state

departments, including the University of Oregon, on the basis of the values of the property being protected. Actually an appraisal is made only once every fifteen years or so and "book" inventory valuations of the respective state institutions are used in making the allocations annually.

As of July 1, 1947, the State Restoration Fund had a balance of approximately \$300,000. In case a major fire took place in the state in excess of \$300,000 it could not be met from the fund and would require a special appropriation by the legislature if the building was to be rebuilt. This situation arose some years ago when the capitol building burned. Only the furniture for the new capitol building was paid for from the State Restoration Fund and the legislature made an appropriation for the new building.

The State Restoration Fund protects against fire only. Settlement is made on a restoration basis; the loss is restored "in kind." In certain instances when it has been decided to rebuild a fireproof class A structure in place of the "fire hazard" that burned, the State Restoration Fund settles for a lump sum payment based upon the cost of replacing the burned property "in kind." The difference in cost is then met from other funds administered by the state department incurring the fire loss.

A typical case showing the workings of the State Restoration Fund would be the loss by fire by a state department of an office desk which cost \$80 and a typewriter that cost \$90. Even though these articles had been used for several years, the State Restoration Fund would replace the burned articles with new articles, at no cost to the department that suffered the loss. The State Restoration Fund in this case would probably pay out \$250 to replace the two articles which were several years old and originally cost \$170.

A private commercial fire insurance company would settle on the basis of the depreciated values of the articles lost. In this respect, the restoration fund method has a distinct advantage over commercial fire insurance, as ordinarily universities and colleges do not carry any depreciation reserves.

Another advantage of the restoration fund method applies in the case of war surplus buildings acquired from the federal government. To illustrate, the University of Oregon acquired two dormitories, each containing 59,820 square feet. The depreciated value for insurance purposes was placed at \$138,186, which means that a private commercial insurance company would pay us this amount in case of total destruction. Our construction engineer estimates that it would cost \$299,100 to replace each building, so both buildings are insured in the State Restoration Fund which will restore them if they burn. Also, it is not likely that both buildings will burn at one time so in this instance no great risk of "overdrawing" the balance in the restoration fund is run, even though it has only a \$300,000 balance.

DISADVANTAGE

In the case of a major loss, the restoration fund method has a decided disadvantage, in that there is not sufficient money on hand to replace the building and equipment destroyed.

The rate of assessment last year amounted to \$0.002209 per \$1 valuation, or about two thirds of the commercial fire insurance rate for a three year period on a typical building. The valuation used in applying this assessment represents the original cost price paid for buildings, supplies and equipment insured with the State Restoration Fund. In case of buildings, equipment and supplies acquired through gifts, the valuation is based upon a fair replacement value as of the date property was acquired.



SOME POINTERS ON

A. F. GALLISTEL

Director of Physical Plant
University of Wisconsin

HAIR, lint and dirt must be picked up by a vacuum cleaner. Note the skimming trough, the raised pool edge on which the operator is standing, and the brick wall. The black streak at the bottom of the pool is a painted lane line, not recommended for use.

THE ORIGINAL DESIGN OF A SWIMMING pool must provide for both the essential sanitary construction and the integral mechanical equipment for its safe and economical operation. The following remarks apply particularly to indoor pools, but many of the requirements are applicable to outdoor pools as well.

A swimming pool should be constructed with the shallow end about 3 feet 6 inches deep, sloping to a maximum depth of 9 feet 6 inches about 15 feet from the opposite end. The drain is located at this point, and the bottom is then sloped slightly upward to the end.

The width should be in multiples of 5 feet (the width of a lane) and not less than a total of 25 feet. The length should be at least 60 feet, with increases in length in increments of 15 feet. A pool may, of course, be built to any convenient dimensions, but the foregoing suggestions will provide a pool satisfactory for official contests.

A skimming trough is an essential part of the structure. The edge of the pool should project somewhat above the surrounding floor or else the floor should slope away from the pool edges. These devices prevent drainage of excess water from the

floor into the pool. A nonslip tile floor, with sufficient floor drains, should surround the pool.

Ladders or recessed steps at each corner are a necessity. The pool proper should be lined with suitable glazed tile, with all corners rounded for easy cleaning. Lanes are best marked by using darker tile, since painting is not satisfactory. Depth markers are desirable.

Especially in cold climates, it is advisable to avoid the use of plaster on pool room walls and ceilings. Humidities are high and the consequent condensation is detrimental to plaster (particularly gypsum). Acoustically treated ceilings are recommended but, here again, suitability to high humidities must govern choice of materials.

The mechanical equipment necessary for satisfactory pool operation consists of a suitable water supply, recirculating pumps, filters, water heater, hair and lint catchers, sterilizer, vacuum cleaner and proper sewer outlet.

If an automatic chlorinator is used, it should be located in a small room near the pool but completely isolated from the interior of the building. Access should be by means of a door leading directly outdoors.

Safety equipment should include a chlorine gas mask located outside of the room, a strong ventilating system with floor and ceiling outlets and a means of playing a stream of water on any point of leakage in the chlorinating system. Water from this stream will freeze at this point because of rapid expansion of the chlorine gas, temporarily sealing the leak until necessary valves can be closed or emergency repairs made.

Most pools are now operated by recirculating the water, with only occasional additions of water to replenish that which is "skimmed off" by the skimming trough. During operation the water is pumped from the pool, filtered, heated (if necessary), sterilized and then returned to the pool.

To guard against infection it is necessary to begin by maintaining scrupulous cleanliness in the locker and shower rooms and other adjacent areas. If required, bathing suits (preferably cotton) must be properly washed and sterilized after every use. Swimmers should be required to take a "soap" shower before entering the pool, and clogs should be used as a protection against athlete's foot. Protection offered by foot baths is seriously questioned by many health authorities!

Merely keeping the pool and surrounding areas clean in appearance will not meet present day standards! Water in the pool itself must be equal to the U.S. standard for safe drinking water. This means primarily that there must be a definite residual chlorine content in the water at all times. This is usually accomplished by automatically feeding chlorine gas into the water stream, but

N SWIMMING POOLS

Their Maintenance and Operation

testing—at least twice daily—is necessary no matter how the chlorine is supplied.

The presence of the proper amount of residual chlorine is an assurance that the water is safe at the time of testing and also that it contains a sufficient amount of chlorine to protect against re-infection by each user of the pool. A chlorine residual of from 0.3 to 0.6 parts per million is recommended. This amount will not ordinarily be objectionable to swimmers. Bacteriological analyses should be made at least once a week to check for B. coli and as a guide to the chlorine concentration needed.

With constant re-use, pool water tends to increase in acidity. It is necessary, therefore, to maintain proper alkalinity, especially in a water supply that has been treated with alum, because excess acidity is irritating to the eyes and nasal passages. This irritation is often wrongfully charged against the chlorine treatment. Daily pH tests will give a

RECORDS must be accurately kept. Fig. 1 (right) is form used at University of Wisconsin to provide daily operating record. Fig. 2 (below) is record of bacteriologic tests of the water. Note the B. coli zeros. Pool water must meet drinking water tests.

check on the acid condition of the water. A desirable pH reading between 7.0 and 8.0 should be maintained. Satisfactory alkalinity can be maintained by the measured addition of soda ash.

A vacuum cleaner, as previously stated, is an essential part of the mechanical equipment of a pool. Its use is necessitated by the fact that all hair, lint and dirt are not picked up by the recirculating system. Cleaning the pool floor, after allowing the foreign particles to settle, is best accomplished by a vacuum cleaner.

THE UNIVERSITY OF WISCONSIN
THE DEPARTMENT OF BUILDINGS AND GROUNDS
Operating Record of Gym Swimming Pool
For Week Ending Nov. 22, 1947

Day of Week	No. of Bathers Daily	Temp. Pool Water °F.	Room Temp. °F.	pH	Pounds Chlorine Added	Chlorine Data p.p.m. Cl. Found in Pool Water					
						8:00 A.M.		12:00 Noon		4:30 P.M.	
						Shallow	Deep	Shallow	Deep	Shallow	Deep
S 23											
M 24	250	81	80	7.6	1½	0.5	0.5	0.4	0.4	0.4	0.4
T 25	250	80	79	7.6	1½	0.5	0.5	0.5	0.5	0.4	0.4
W 26	250	79	77	7.6	1½	0.4	0.4	0.4	0.4	0.4	0.4
T 27	Holiday										
F 28	150	81	79	7.6	1½	0.5	0.5	0.5	0.5	0.5	0.5
S 29	150	82	79	7.6	1½	0.5	0.5	0.5	0.5	0.4	0.4

Bacteriological Test Data 11-24-47

B. Coli Present 00000

Pool Emptied Aug. 30, 1947 Filter Backwashed Nov. 25, 1947

Pool Cleaned Sept. 3, 1947 Filter Cleaned & Replaced July 22, 1947

Pool Filled Oct. 4, 1947 Pool Bottom Vacuumed Nov. 29, 1947

No. hrs. of pump run daily 24

Rate Recirculation of Water 185 gallons per minute.

Remarks

OK M.S.N.

Signed M. F. Robinson

REPORT OF WATER ANALYSIS

Source Lathrop Hall Swimming pool - U. of W.

Madison, Wis. Dane Co.

Sent by M. F. Robinson

Address U. W. Service Bldg., Madison, Wis.

Collected 12-22-47 Received 12-22-47 Lab. No. 15088

Count at 37° B Coli in 5 10 cc. portions 0 0 0 0 0

Interpretation:

Satisfactory swimming pool water.

WISCONSIN STATE LABORATORY OF HYGIENE
Laboratory of the State Board of Health

It is the practice to empty pools once or twice a year. At such times the tile work should be thoroughly scrubbed down and then flushed. Necessary repairs to the tile lining and mechanical equipment should be made before refilling.

In order to check pool conditions and operation, it is necessary to keep accurate records. Figure 1 is a form used at the University of Wisconsin to provide a daily operating record. Figure 2 is a form originally developed by the state laboratory of hygiene for use in recording bacteriological tests of drinking water. It is adaptable to use in recording tests of swimming pool water, since drinking water standards should be maintained.

Our tests are made by the laboratory of hygiene of the state board of health, which cooperates with the university in all phases of swimming pool operation wherein matters of public health are involved. This cooperation is greatly appreciated.

The forms are filled out by the operator in charge of the pools who makes all but the bacteriological tests. He has been especially trained for this work because of his interest and reliability. A substitute of similar attributes has been trained.

WHEN *Meat* IS SCARCE

... selecting and cooking it become all the more important

WILLIAM J. LOEFFEL

Chairman, Department of Animal Husbandry
University of Nebraska

THE PRESENT AND PROSPECTIVE MEAT situation is a challenge to everyone interested in institutional management to utilize the available supply with utmost efficiency.

First of all, there is the selection of the proper class and grade of meat to do the job effectively. This discussion will be confined largely to beef although the same general principles apply to other species as well.

Beef is classified primarily by sex. Government classifications group steer and heifer beef together although most packers prefer to keep them separate. Most retailers prefer steer beef for the steer carcass will produce a slightly higher percentage of hindquarters, which generally command a premium over forequarters. Steer carcasses are heavier muscled and also have larger bones. There is no difference in the quality or palatability of steer and heifer beef.

Heifers mature earlier than steers and fatten more readily. Experimental work at the Nebraska and the Illinois experiment stations has shown heifer calves to be as fat after 175 days of feeding as steers after 225 or 250 days. Heifers often are overfinished or wasty, which is probably the reason why heifer beef is often discriminated against.

Cow beef is usually abundant on the market in the fall and early winter. The beef is more mature and, therefore, a little less tender although it is generally conceded to be fuller-flavored than the beef from less mature cattle. The selection of the proper preparation method is more important with cow beef than it is with that of younger animals. Young cow carcasses sometimes offer a way of cutting meat costs without too great a sacrifice in quality.

Bull and stag carcasses usually are not too numerous on the market. They are characterized by a heavy neck and shoulders. When young bull or stag carcasses, showing some finish, can be

purchased, they often fit in well for institutional use.

The classes of beef are subdivided into grades. The top grade of steers and heifers is known as Prime. Because of the very limited number of prime cattle on the market, the top grade for all practical purposes is Choice. Then follow the grades of Good, Commercial and Utility. There are two lower grades: Cutters, so lacking in shape or quality that they must be broken up into wholesale cuts, and Canners, so inferior that they can be used only for making boneless cuts.

With cow, bull and stag carcasses the top grade is Good, followed by Commercial, Utility, Cutter and Canner.

The grade of a carcass is determined by the following grading factors: shape, or conformation; finish, or fatness, and quality.

Under conformation, preference is given to the straightlined, blocky or meaty carcass or cut.

Fatness is esteemed for the juiciness, tenderness and flavor it imparts to meat. Different parts of the country vary in the amount of fat consumers desire or will accept. Fatness generally is correlated with grade, that is, the fatter the carcass, the higher the grade. However, excessive fatness or

wastiness lowers the grade. Fat also improves the keeping quality of meat.

Quality includes a number of factors. Marbling, or the mixture of fat with the lean, is generally considered to be one of the best indexes of quality. Meat is made up of bundles of muscle fibers. The size of these fibers is spoken of as texture. Fine grained muscles are generally considered tenderer than coarse grained ones.

Firmness is another desirable characteristic. The lean of beef should be "bright" in color; darkness is discriminated against. White fat is generally preferred over yellow. "Youth" in beef is indicated by the redness and softness of the bones. Meat from a young animal is generally tenderer.

It should not be inferred that the grade of a cut of meat is any indication of its wholesomeness. All properly inspected meat is wholesome food. Generally speaking, the higher grades are more palatable although the correlation between grade and palatability is not perfect.

The following table shows the effect of grade upon the percentage of fat, lean and bone in entire sides of beef. The grades here used are the O.P.A. grading system. AA includes Prime and Choice; A, the Good grade, and B, Commercial.

Physical Composition of Sides of Beef

Grade	AA+	A+	A-	B+
Fat.....	29.7%	21.1%	18.9%	17.7%
Lean.....	52.5	58.9	60.1	60.7
Bone.....	16.6	18.6	19.8	20.6

Chemical Composition of Edible Portion

	Choice	Good	Commercial	Utility
Water.....	47.0%	55.0%	60.0%	66.0%
Crude protein.....	13.7	16.3	17.5	18.8
Fat.....	39.0	28.0	22.0	14.0
Ash.....	0.65	0.79	0.87	0.97

COMPARISON OF TWO STANDARD RIB ROASTS COOKED AT DIFFERENT TEMPERATURES

OVEN TEMPERATURE	450° F. (Hot)	300° F. (Med.)
Internal temperature of meat.....	140° F. (60° C.)	140° F. (60° C.)
Weight before cooking.....	9 lbs. 5 oz.	9 lbs. 6 oz.
Weight after cooking.....	7 lbs. 4 oz.	8 lbs. 10 oz.
Cooking loss.....	2 lbs. 1 oz.	12 oz.
Cooking loss in per cent.....	22%	8%
Drippings.....	9 oz.	4 oz.
Cooking time.....	2 hrs. 12 min.	2 hrs. 42 min.
Minutes per pound.....	14 min.	18 min.
Fuel consumption (gas).....	22.7 cu. ft.	13 cu. ft.
	21,257 Btu.	12,633 Btu.
Fuel cost.....	1.82 cents	1.04 cents

The correlation between grade and fatness is readily seen. The percentage of lean is lowest in the higher grades. The percentage of bone is smallest in the top grades.

Every buyer should determine the amount of fat desired in the meat served by his institution. When the fat is not eaten, economy dictates that one of the lower grades be used.

Here again is noted the close correlation between grade and the percentage of fat. The percentage of fat in the flesh of the Choice grade is more than double that in the Utility grade. The percentage of water varies inversely with grade. The percentage of protein and of ash is lower in the top grades.

Not only are there differences in composition between carcasses, but there are equally great differences between wholesale cuts in the same carcass. Thus some cuts are high in lean, others in fat and others in bone. Of course, the various cuts vary in tenderness and, therefore, must be prepared by different cookery methods.

COOKERY IMPORTANT

The cookery method must be selected for the individual cut. Meat cookery methods may be divided into two categories: quick and slow. The quick methods are based on cooking with dry heat and are adapted only to meats that are inherently tender. The quick cookery methods are: roasting, broiling and panbroiling.

Roasting is the cooking of a roast in an oven in an uncovered utensil without the addition of liquid. Roasting is best done by inserting a meat thermometer into the center of the thickest part of the roast and cooking until the meat temperature reaches the proper point. The temperature varies with the species of meat and also with the degree of "doneness" desired. The thermometer takes out the guesswork.

Broiling is cooking steaks by direct application of heat from either charcoal, gas or electric elements. It is a method suitable for tender steaks only. Steaks for broiling should be choice in quality and must be cut at least $\frac{3}{4}$ inch thick.

Panbroiling is a method of cooking thin or lower grade steaks in a skillet, pouring off the accumulated fat. This hot fat has a tendency to dry out the meat; hence, it is poured off as it accumulates.

Slow cookery methods employ moist heat at relatively low temperatures. The less tender cuts may be cooked by this method for the connective tissue is hydrolyzed or broken down to gelatin by the moist heat. The slow methods are: braising, stewing and cooking in water.

Braising involves the browning of meat in hot fat, then cooking in a covered utensil either with or without added water. The Dutch oven, the casserole, the chicken fryer, the waterless cooker, the pressure cooker and the covered roaster are all used for braising.

Stews may be either light or dark. For dark stews the cubes of meat are browned in hot fat, then simmered in water until done. Vegetables may be added at the proper time if desired. For a light stew, the cubes of meat are simmered without the preliminary browning. Both in stewing and in cooking in water the meat is never boiled but is cooked below the boiling point.

Cooking in water is accomplished like stewing except the meat is simmered in large cuts.

Merely selecting the proper cookery method is not all; the cooking must be properly done. For example, it was once believed that roasts should be seared at high temperatures "to seal in the juices." More than twenty years ago it was shown that searing is un-

necessary. Nor is basting needed. It was once thought that high temperatures were desirable for roasting. Today we know that we can obtain a superior product at moderate temperatures. This has been strikingly demonstrated in repeated tests at the Nebraska and other experiment stations or kitchens.

The following is an actual case in which two standing rib roasts from the same animal were roasted at different temperatures. These roasts were as nearly identical as possible, one coming from the right side and the other from the left. One roast was roasted in a hot oven (450° F.) and the other in a medium oven (300° F.). A meat thermometer was placed in each roast and both roasts were cooked to the same internal temperature, 140° F. or 60° C., which is the proper temperature for a rare roast. The data covering the test are given in the table.

The roast cooked at the high oven temperature shrank 2 pounds 1 ounce while that cooked at the low temperature shrank only 12 ounces although cooked to the same degree of doneness. Percentage-wise the high temperature roast shrank 22 per cent, or almost three times as much as the low temperature roast. The difference between the two shrinkages was 1 pound 5 ounces. This represents five servings.

The drippings from the high temperature roast weighed 9 ounces, or twice as much as those from the roast cooked at the low temperature (4 ounces). This is only part of the story, however, since the drippings from the high temperature roast were so scorched that they would not make good gravy.

The reason often given for high oven temperatures is that less time is required to cook the meat and that a saving in fuel is effected.

While the roast cooked at high temperature was done in thirty minutes less time, that small saving is hardly worth while. More fuel was used at the high temperature than at the low.

The story has yet not all been told. The oven used at the high temperature was badly spattered and the roasting pan was scorched, necessitating much additional time for cleaning.

In institutions and in many homes, meat is constantly overcooked because "they like it that way." However, in overcooking, tons of food are lost.

Who has the authority TO HIRE AND TO FIRE



M. M. CHAMBERS

American Council on Education

IT IS NOT TOO WIDELY KNOWN THAT the power to bind an educational institution by a contract of employment is usually exercised only by vote of the governing board itself.

Presidents, deans and various department heads in practice are expected to select their own associates and assistants, but such selections do not become legally effective until submitted to the board and either favorably voted in advance or ratified by it. Especially if the contract purports to provide for long tenure, any executive officer and all who negotiate with him should know that his authority is limited and that it is likely that no enforceable contract will come into existence until it is proffered by vote of the board and subsequently accepted.

Two recent cases are in point.

LIFETIME TENURE NOT PROMISED

The comptroller of Phillips Academy, endeavoring to persuade a friend to accept employment as his assistant, was alleged to have indicated orally that "the job would last the rest of his life if he behaved himself" and that he would get a specified salary, use of a house at low rental and retirement benefits.

The prospective assistant accordingly accepted orally and entered upon the employment in 1939. There was no written contract and no ratification by the board of trustees. In 1941 the assistant was dismissed by the treasurer, whereupon he sued the trustees as on contract for life tenure.

A directed verdict in favor of the trustees was appealed to the supreme

judicial court of Massachusetts and readily sustained. It would be unreasonable to hold that the comptroller had ostensible or apparent authority to offer employment for life, thought the court. His duties were defined as "to control accounts and check expenditures." This would not include the power to employ an assistant for life. The academy had no lifetime contract with any officer or employee and no precedents of that kind. Accordingly no contract existed in this case.¹

NOT BY PRESIDENTIAL FIAT

A more complicated case was that of a teacher who sued in a New York court for a declaration establishing him as a "regular member of the English department in the day session faculty of the college of liberal arts and sciences of City College, with full tenure rights as of May 20, 1931." This plaintiff had been a teacher in Townsend Harris High School (the preparatory school at City College) since 1923 and as such acquired his tenure rights in 1931. His job was abolished in 1942 when Townsend Harris was terminated; pursuant to the tenure law, the board of higher education placed his name on a preferred eligible list for three years, such list not being applicable "to any position in any of the municipal colleges." Thereafter he accepted employment at City College in temporary capacities and on one occasion received a letter from the president of City College saying that for the purpose

of voting in the department and meeting such occasions as have to be met in the near future" he would be regarded as having tenure "from the time of transfer from the high school to the college." The wording of the letter leaves ample room for doubt that the president ever meant to convey an impression that the teacher actually was entitled to permanent tenure in the college, but it was the plaintiff's sole reliance in this suit.

As a matter of fact, the president has no such authority. The closing of Townsend Harris High School and the consequent abolition of the teacher's position, together with the board's placing of his name on an eligible list not applicable to the municipal colleges, were recognized as placing him in a predicament meriting sympathetic consideration but for which there was no legal relief.

An earlier decision had held unequivocally that Townsend Harris High School was not a part of City College but a "non-college institution" quite distinct from the college and having a separate faculty.² Moreover, when the plaintiff in this case accepted temporary appointments in the college, he automatically waived any right to permanent tenure in that institution. Hence his petition was denied.³

The cases illustrate that the acquisition of tenure rights in an institution is a matter necessarily carefully guarded and to be accomplished only in strict accord with the statutes and court decisions and board rulings touching the subject in the particular jurisdiction. An apparent conclusion of an executive or administrative officer in such a matter will have no force unless fully authorized by the law and custom of the institution, including affirmative action by the governing board.

In some instances the governing boards of state institutions are prohibited by state statutes from making contracts of employment for periods longer than one year. Governing boards of public and private institutions often adopt and keep in force standing ordinances of their own which limit the length of the periods for which contracts of employment will be made with employees of different ranks and grades.

¹Wasmund v. La Guardia, Mayor, et al., 287 N.Y. 421, 40 N.E. 2d 234 (1942).

²Trilling v. Board of Higher Education of City of New York et al., (N.Y. Sup.), 67 N.Y.S. 2d 572 (1946).

³Braden v. Trustees of Phillips Academy, (Mass.), 71 N.E. 2d 765 (1947).

QUESTIONS AND ANSWERS

Maintenance Percentages

Question: What percentage of a college or university budget should be spent on yearly maintenance of the institution's buildings and campus, exclusive of salaries and wages?—C.J.B., N.C.

ANSWER: In talking about percentages of a university budget, the figures will mean little unless we know what is included in the base upon which percentages are taken. In state institutions with a combination of state, federal and other funds, it is difficult to arrive at a common base. However, the following information obtained from various schools in the Pacific Northwest may prove of interest.

Maurice Stuart, business manager, Pacific University, Forest Grove, Ore., reports as follows:

"The breakdown of our expense for the year 1946-47 shows that we spent 12 cents out of every dollar of income for the maintenance of campus and repairs. This is exclusive of new buildings but included necessary remodeling of old for classrooms and for repairs to residence halls. I suspect, from observation, that the general cost from year to year should not be more than 6 or 7 per cent at a maximum. Profit making institutions figure 5 per cent for grounds and building upkeep. Another consideration is the size of the campus in respect to the buildings."

Kenneth Courson, business manager, Central Washington College of Education, Ellensburg, states:

"I have no answer to this question since this varies greatly in accordance with the needs of the entire institution. In case the college budget is low, little is spent for maintaining the buildings and grounds."

C. A. Truitt, superintendent of buildings and grounds, University of Idaho, reports:

"Last year we spent approximately 10 per cent of our annual budget on yearly maintenance of buildings and grounds, exclusive of salaries and wages. Normally, we should spend more money than that. Our normal cost would probably be twice or three times that percentage."

A. R. Emerson, superintendent of buildings and grounds, College of Puget Sound, asserts:

"In the period from Sept. 1, 1946, to June 30, 1947, we spent for plant operation and maintenance a total of 15.3 per cent of the figure which included administration, instruction, library, and plant operation and maintenance. With such a rapidly expanding enrollment, we do not seem to be able to hold down the cost of plant operation very much."

Gerard Banks, bursar, College of Puget Sound, adds:

"We should like to be able to conform more closely to the averages for privately controlled institutions as contained in the book 'Finance for Higher Education' by Russell. These percentages are:

Administration	16.0%
Instruction	65.0
Library	4.2
Plant Op., Maintenance	14.8

"Our budget for next year is set up to conform closely to these national averages."

Ernest M. Conrad, assistant comptroller, University of Washington, reports:

"It is difficult to set up a definite percentage because much depends upon such conditions as: (1) construction of buildings; (2) age of buildings; (3) wage scale; (4) heating maintenance; (5) extent to which building is used.

"For strict maintenance cost, exclusive of salaries, heat, light and telephone, the University of Washington spent approximately 2 per cent of its budget per year during the last biennium and during the next two years will spend somewhat in excess of that. Salaries are the greatest portions; if these were taken into consideration, the maintenance cost would be in excess of 10 per cent of our budget."

W. A. Gilchrist, business manager, Lewis and Clark College, writes:

"We have just enrolled 1100 students and have a building program of \$750,000.00, plus three government

buildings. In regard to the percentage of our budget, we do not make a breakdown, but our total cost of plant operation was about 14 per cent of our total budget, and maintenance was around 8 per cent."

At our own State College of Washington; C. L. Hix, comptroller, submits the following information based upon our financial report for the year 1945-46. This is the year previous to the start of our recent large emergency construction program.

In the summary below, the first column of percentages is based upon the inclusion of all seven items. The percentages in the second column omit items 3 and 4, and this omission reduces the total expenditures to \$2,607,703.48. A similar analysis for 1946-47 expenditures is not yet available, but owing to the large building expenditures the percentages would be completely changed.

Attention should also be called to the fact that land-grant colleges with their agricultural experiment stations and their agricultural extension service, both of which are included in column 1, show entirely different percentages than those schools without the two items mentioned, as is indicated in the second column below.

"Total expenditures for all departments from all sources totaled \$4,263,138.15, classified as follows:

Administration & general		
expense	11.0%	18.0%
Instruction	24.8	41.6
Organized research		
(experiment stations)	20.3	
Extension (largely ag.		
extension)	18.5	
Library, auxiliary		
enterprises	6.0	8.8
Operation and		
maintenance	12.6	20.6
Additions to physical		
plant	6.8	11.0
	100.0%	100.0%

—FRED G. ROUNDS, superintendent of buildings and grounds, State College of Washington.

NEWS

Need 3½ Billion Now for College Buildings . . . U.M.T. Opposition Leads to Changes in Program . . . Financial Relations, Community Colleges, Better Faculties Covered by Commission Report . . . New W.A.A. Donations Announced

Washington Correspondent: HELEN C. BROWN

Strong Reaction Against U.M.T. Brings Change in Proposed Programs

WASHINGTON, D.C.—Concurrently with closed hearings of army, navy and air force representatives before the Senate committee on military affairs, changes in the proposed program for universal military training have been released by the armed forces.

Although exact details have not been worked out, the most important change is the proposal to inaugurate the military training program gradually. No person would be inducted during the first year in which the law is in effect in order that the full time might be devoted to setting up the necessary machinery. The second year, one-third of all 18-year-olds would be inducted; the third year, two-thirds, and the fourth year a "full class" would be inducted, that is, all able-bodied males who become 18 years of age during that year.

The second proposed change is that navy trainees will receive their training in shore establishments rather than on shipboard. This suggested change is made solely in the interest of economy.

Opposition to U.M.T. is definitely increasing in spite of the favorable report of the President's Committee on Universal Training, the American Legion's "Support U.M.T. Week" and the activities of the army and other groups in pressing for such training.

The Gallup Poll of January 1948 showed only 65 per cent of the American public in favor of U.M.T. as contrasted with 75 per cent in favor in July 1947.

A group of prominent citizens headed by Albert Einstein has issued a thirty-two-page report against universal military training. The Association of American Colleges, at its

annual meeting on January 13, voted 219 to 69 against such training.

At a meeting on January 23 of the constituent members of the American Council on Education, 50 national organizations in education approved by a vote of 41 to 9 a statement expressing their conviction that the establishment of universal military training would give a false sense of military security and would weaken the essential elements of national security.

Billions for Buildings?

WASHINGTON, D.C.—The U.S. Office of Education recently reported that to meet the nation's present need for school buildings would require the expenditure of \$11,000,000,000. This estimate was based upon data supplied by 37 states. At least \$3,500,000,000 is necessary to provide adequate facilities for colleges and universities. The report indicates that the anticipated increase above present enrollments will add proportionately to the need for buildings.

New Science Foundation Bill

WASHINGTON, D.C.—Congressman Priest of Tennessee has introduced a new bill to authorize the establishment of a National Science Foundation. The bill specifically incorporates the provision that the director will be appointed by the President with Senate confirmation.

Air Force Academy Proposed

WASHINGTON, D.C.—Legislation has been introduced which would authorize the establishment of an Air Force Academy similar to West Point and Annapolis. It would offer a four-year course of basic military education and liberal arts as well as special aviation training. Cadets would be entitled to flying pay as well as to base pay.

Free Community Colleges Recommended by President's Commission

WASHINGTON, D.C.—The establishment of publicly controlled community colleges to be "free" to the extent that the secondary schools are free was recommended by the President's Commission on Higher Education in the third volume of its report, "Organizing Higher Education," published January 12.

The commission emphasizes that to achieve the nation's goal of 4,600,000 college students by 1960, this expansion of the educational program through the 13th and 14th grades will be made possible largely by an extension upward of the public school system in the larger communities.

Communities too small to maintain such programs efficiently should unite into larger units and establish district colleges, it is urged.

The commission cautions against undue multiplication of institutions, however, and recommends that the development be on the basis of a carefully worked out program to meet the needs of higher education of the entire state.

No uniform pattern can or should be recommended to be applicable in each state, it is pointed out. In some, local boards of education may be able to extend the secondary school; in others, the state may develop or further expand state-supported community colleges; in still others, established institutions, especially publicly controlled universities, may meet the need through the development of permanent resident extension centers.

The rôle of national voluntary agencies in higher education is fully recognized and the commission recommends still closer cooperation among them and with the federal government.

Accrediting organizations and those in the professional fields that exercise control of institutions through membership are urged to appraise their policies in terms of the national interest rather than in terms of their own vested interests.

This report does not seek to create either a federal or a state system of higher education. It recognizes that a major element of strength has been the autonomy of individual institutions. It does, however, urge courageous, co-operative planning involving governmental units at the local, state and national level and voluntary organizations, state, regional and national.

College Heads Argue Federal Aid, U.M.T. and Discrimination

CINCINNATI, OHIO.—College problems connected with finances, discrimination, federal aid and universal military training occupied the attention of the 600 college presidents and deans attending the 34th annual meeting of the Association of American Colleges held here in January.

The financial crisis facing colleges resulting from sky-rocketing costs has not been eased by overflow enrollments. The contrary has been true, as the swollen enrollments have made necessary the provision of temporary facilities at exorbitant cost to the institutions.

Most of the administrators present admitted that tuitions have been raised as far as they can go. In general, tuition has been increased from 25 to 50 per cent over prewar years. Private fund-raising campaigns are being conducted, but college heads expressed doubt as to whether the funds would be sufficient.

On the subject of federal financial aid for colleges there was bitter and spirited discussion. A large group opposed direct federal assistance and suggested a scholarship program whereby the federal government would subsidize the student and not the college. This follows in general principle the pattern established by the G.I. Bill of Rights as operated through the Veterans Administration. Many of the delegates present asserted that this would not solve the problem and would leave undone the huge building projects badly needed on most college campuses.

The association overwhelmingly defeated a proposal by Dr. Harold W. Dodds, president of Princeton University, that universal military training be established. Only 69 delegates supported the proposal, with 219 voting against it.

Discrimination practiced against minority groups seeking college admission was sharply criticized as the result of a report of a special committee under the chairmanship of Chancellor William P. Tolley of Syracuse University. At the conclusion of an intense and bitter discussion, the association voted:

1. To establish a commission to report annually on factors dealing with college discrimination.
2. To adopt a statement that "the problem of discrimination in admission to colleges should be solved by education and voluntary action and not by coercive legislation."
3. To work for the repeal of state legislation limiting the right of any qualified person, regardless of race, creed or color, to enter a college or professional school.

Testing Services Merge

WASHINGTON, D.C.—The testing services of the American Council on Education, the Carnegie Foundation for the Advancement of Teaching, and the College Entrance Examination Board have been merged into a single organization to be known as the Educational Testing Service. Henry Chauncy has been named president and director of the new organization, and President James B. Conant of Harvard is the chairman of the twelve-man board. The Carnegie Corporation is contributing \$750,000 in new capital to the organization and the accrued assets of the various testing services are approximately \$500,000.

Freezes Room and Board

CARTHAGE, ILL.—No further increases in charges for room and board are to be made at Carthage College, President Erland Nelson announces. Last September the board rate was raised from \$7.50 to \$8.50, which means that Carthage students are now paying on the average of 41½ cents a meal in the college's nonprofit dining hall on the campus. Almost 600 of the institution's 718 enrollment eat at the college operated facility.

Generous Federal Aid to Publicly Controlled Colleges Is Urged

WASHINGTON, D.C.—A program of federal aid amounting to \$268,000,000 in 1948-49 and increasing to \$854,000,000 by 1960 to meet general and educational expenditures and the needs of capital outlay for publicly controlled colleges and universities was recommended by the President's Commission on Higher Education in its fifth and last policy statement, "Financing Higher Education."

The amount recommended is in addition to the continuing grants of the federal government to the land-grant colleges and for other special purposes, including contract research or training. It is also exclusive of the federal program of scholarships and fellowships recommended by the Commission in Volume II of its report, released December 22.

The amount of the proposed general federal aid is based upon the complete fulfillment of the commission's recommendation of a desirable and potential enrollment of 4,600,000 students by 1960. Of the \$268,000,000, only \$53,000,000 in 1948 is for general and educational expenditures, but of the \$854,000,000 in 1960, \$638,000,000 would be for this purpose.

To close the gap totally between enrollment in 1946-47 and the potential enrollment of 4,600,000 by 1960 would entail an annual expenditure of \$2,587,000,000 for general and educational purposes, or two and one-half times the amount spent in 1946-47. Hence the proportion of the increase which it is proposed that the federal government invest in higher education is only approximately one-third of the total increase. The balance would be raised by increased appropriations from local and state governments and from private gifts and grants.

The commission urged that the total income from student fees in publicly controlled institutions be cut back from nearly 30 per cent of the operating budget in 1946 to only 9 per cent in 1960.

The total additional capital outlay required to provide adequate physical facilities for instruction of 4,600,000 students will be approximately \$8,000,000,000, the commission estimates. Since this is to be spread over a period of twelve years, the average annual

expenditure would be \$672,000,000. Of this amount, privately controlled institutions would require \$25,000,000 since it is assumed by the commission that the increase in enrollment would be almost entirely in publicly controlled institutions. The \$216,000,000 annual federal appropriation for capital outlay to public colleges and universities is thus one-third of the total required; local and state governments must assume two-thirds of the cost.

New Surplus Property Donated Program Announced by W.A.A.

WASHINGTON, D.C.—To speed up disposal of remaining surplus, and to move toward the deactivation of the agency, a new across-the-board donation program has just been announced by the War Assets Administration.

This expansion of the program for donations makes surplus personal property equally available to all eligible institutional applicants, including educational institutions exempt from taxation under Section 101 of the Internal Revenue Code.

All items of surplus property, other than real property, will be available for donation under the revised program, provided they have been adequately offered for sale to all types of buyers and have been found to have no commercial value for their original purposes.

Under the program, regional directors are empowered to designate personal property suitable for donation to eligible institutions, where the total acquisition cost of the items was not in excess of \$100,000. W.A.A. zone administrators may approve personal property for this purpose up to \$300,000 acquisition cost. Where the original cost of selected property exceeds these amounts, approval must be obtained from the Washington office. As property is selected for donation in the various regions, the regional office will take the initiative in acquainting eligible donees within the region as to what property is available and how to procure it.

So far as possible, the program will be coordinated through the established state purchasing organizations representing both public agencies and nonprofit institutions. The state educational agencies for surplus property

will be expected to coordinate the distribution of property to eligible public and nonprofit private educational institutions.

Transfer of Temporary Housing Urged by A.C.E. Committee

WASHINGTON, D.C.—The committee on relationships of higher education to the federal government of the American Council on Education recently met with representatives of the federal housing agencies and urged the enactment of legislation to transfer the operation of Lanham Act temporary housing to the colleges and universities.

The transfer must be consummated before June 25, 1949, to remove such housing from the demolition clause of the Lanham Act, unless, of course, the law is amended to extend the two-year period after the termination of the war within which demolition is mandatory. In the judgment of the council committee, transfer is preferable to extension as it would then be possible for the institutions to recover some portion of their expenditures in site preparation.

It is a complicated issue, however, since it is unlikely that Congress can transfer college housing to the institutions without also transferring to municipalities the temporary housing allocated to them. There is a real fear that the latter transfer and removal from demolition requirements would permit the continuous use of such temporary structures and create new federally subsidized slum areas.

Even colleges and universities might be tempted, because of enrollment pressure, to keep such buildings longer than desirable. Also some of the institutions are using housing on site and the issue arises as to transfer of the housing without transfer of title to the land which is a part of a military establishment.

Tuition, Salaries Rise

MIDDLEBURY, VT.—Dr. Samuel S. Stratton, president of Middlebury College, announced recently that the board of trustees of the college had voted to raise the tuition fee next fall from \$450 to \$500 a year. The trustees also voted salary increases for both faculty and administrative staff.

List Principles for Federal-College Financial Relations

WASHINGTON, D.C.—Seven basic principles are believed by the President's Commission on Higher Education to be essential guides in developing and expanding federal financial relationships with colleges and universities. They are:

1. The federal government should recognize the national importance of a well-rounded and well-integrated program of education for all citizens, regardless of age, sex, race, creed or economic and social status.
2. Federal funds for the general support of institutions of higher education should be distributed among the states on an equalization basis.
3. Federal appropriations for the general support of higher education should clearly recognize the responsibility of the states for the administration and control of the education programs.
4. Adequate safeguards should be established by the federal government to assure the full realization of the purposes for which aid is to be granted.
5. Federal funds for the general support of current educational activities and for general capital outlay should be appropriated for use in institutions that are under public control only.
6. Federal funds provided for scholarships or grants-in-aid should be paid directly to qualifying individuals who should have free choice in determining the college they deem suitable to their needs and interests, regardless of whether that institution is under public, private or church control.
7. The federal government should make contracts with individual institutions, publicly or privately controlled, for specific services authorized by federal legislation.

A statement of dissent, signed by two members of the commission, points out that all colleges and universities are rendering a public service and should therefore be eligible to receive federal funds for general and educational expenditures and for general capital outlay. They should not be restricted to assistance only in providing contract services and to indirect aid through federal scholarships and fellowships to students.

Better Preparation of Faculty Sought by Commission

WASHINGTON, D.C.—To meet the needs of the total potential student body of 4,600,000 by 1960, as recommended by the President's Commission on Higher Education, will require a teaching and research faculty of 300,000 together with 50,000 for special services and administration.

This is pointed out in the commission's fourth volume, "Staffing Higher Education."

Failure to develop such a specific program of pre-service preparation of teachers rests squarely upon the graduate school, according to the commission. The assumption that mastery of a specialized field of knowledge and the conducting of a research project even more specialized in scope are all that is necessary for a college teacher is both unrealistic and unsound.

Training and experience in imparting knowledge and skill are as important as knowledge of subject matter, says the commission, in urging internship programs for teaching, research, administration and the conduct of special services.

To improve the product of the graduate schools, to assist in teacher placement and to bring supply and demand together, the commission recommends "the establishment of a nationwide clearing house of information regarding personnel needs of colleges and universities and personnel to meet these needs."

Believing that college teachers need supervision or assistance after employment, the commission recommends an institutional program to include: induction of new faculty members, opportunity for group participation in formulation of policies, intervisitation and exchange among faculty members, utilizing consultants and others from outside the institution, and development of central services.

Such central services might be established within a single institution, cooperatively by several, or on a state-wide basis. The most obvious service is that of providing audio-visual aids to instruction. Others include testing and statistical assistance, counseling and library service, such as preparation of bibliographies, and preparing photostat copies of significant articles.

Increased faculty salaries and definite

salary policies developed through faculty participation are recommended.

Elements of a sound salary policy are given as follows: (1) beginning salary to meet competition and to attract outstanding talent; (2) early increases sufficient to hold excellent teachers and research specialists; (3) reasonable increases based upon satisfactory performance within each category of rank; (4) participation of faculty representatives in determining salary policies.

It is proposed that the differential in average salary between ranks be from \$750 to \$1500. "Promotion from rank to rank should be determined by merit—merit in teaching, research, publications or other academic service, not on length of tenure. Time served is not a measure of professional growth."

The commission recommends that, as a national average, the ratio during the 13th and 14th years be twenty students per faculty member, during the 15th and 16th years, thirteen, and on the graduate level, ten.

Science Committee Created

WASHINGTON, D.C. — President Truman announced on January 6 the appointment of an interdepartmental committee on scientific research and development. John R. Steelman was named to serve in a liaison capacity between the President and the committee and also between the President and the nation's scientists and scientific organizations. The functions of the committee are to coordinate and stimulate the research and development activities of the federal government and to tie in federal research operations with those in the civilian field, including those of colleges and universities.

Gives R.O.T.C. Enrollment

WASHINGTON, D.C.—A total of 152,656 students was enrolled in army R.O.T.C. courses in schools and colleges during the first semester of 1947-48, the Department of the Army announces. Of this number, approximately 80,000 are in colleges and universities not primarily military, 8000 are in military colleges that grant degrees and the others are in institutions that do not grant degrees or are of less than college grade.

V.A. Has Three New Fiscal Policies Affecting Colleges

WASHINGTON, D.C.—Three policies have been announced by the Veterans Administration that affect the fiscal relationships of institutions providing education and training for veterans.

One is the extension of the 75 per cent advance payment for instructional costs for institutional on-farm instruction or other vocational instruction offered by a designated state agency which has been approved as an educational institution. V.A. regional offices are authorized by this directive (TB-7-73) to incorporate the 75 per cent payment in contracts with such institutions.

A second policy is that in negotiating a contract for "cost of instruction and essential supplies" the Veterans Administration bases its calculations on the cost for the preceding semester. Heretofore, institutions have been permitted to estimate their costs for the current term. One way of making an adjustment during this academic year is by negotiating a new contract for the second semester, basing calculations upon first semester costs.

The third policy deals with changes in out-of-state fees. The V.A. now requires institutions to submit an analysis of their instructional costs as evidence that recently increased or newly established nonresident fees remain fair and reasonable compensation. In those cases where nonresident fees have been established, but where no nonresident nonveteran students are in attendance except in inconsequential numbers, similar analyses of costs should be submitted to justify the amount of payments being made for the instruction of veteran students.

Scholarships at Princeton

PRINCETON, N.J.—President Harold W. Dobbs of Princeton University has announced the establishment of twenty regional scholarships for the purpose of attracting outstanding students from all parts of the nation.

The scholarships will range from \$800 to \$1200 a year, depending upon travel distance. Winners will retain their grants through four years of college, subject to satisfactory academic performance. The United States has been divided into twenty sections, each one to have one scholarship.

Veteran Enrollment Reaches New High

WASHINGTON, D.C.—More G.I.'s were enrolled in education and training on Dec. 31, 1947, than at any time since Public Laws 16 and 346 were enacted, just a little less than 3,000,000. Of this number, 1,300,000 were attending colleges and universities. This is an increase of approximately 10 per cent over the highest previous peak enrollment reached in April 1947.

The number of veterans in other institutional training also showed a slight increase, but on-the-job training consistently declined during the last ten months of 1947.

Veterans are still continuing to apply for their certificates of eligibility and time entitlement at the rate of 5000 a day, or 150,000 a month. The total number of certificates issued as of December 31 was 7,600,000, representing more than half of the veterans.

One factor that may prevent any significant recession in veteran enrollment prior to June 1951 is that those who were discharged prior to June 1947 must have enrolled by 1951 or lose the opportunity.

Although V.A. has not as yet officially ruled on the matter, it is probable that a veteran who has enrolled in a school or college even for a summer session will be considered as having "entered into training." He will then have until June 1956 to complete his time entitlement.

Both Parties Reendorse Education and Health

WASHINGTON, D.C.—In his State of the Union message, President Truman again endorsed basic federal programs in health and in education.

The President specifically recommended the extension of old-age and survivors' insurance benefits "to millions who are not now protected"; a national health program with high standards of medical care, and an adequate education for every person.

In order to advance these programs to protect and develop our human resources, President Truman urged the establishment of an executive department of the government for the administration of health, education and security.

Senator Taft stated, following the message, that the Republican party has

a program dealing with health, education, housing and social security. Federal aid, he said, "should be limited to those fields where state and local government cannot adequately do the job which ought to be done for the benefit of those of our population who cannot pay their own way."

In other than an election year, such bipartisan support would be a strong assurance of passage of social welfare legislation. Since this is an election year, the relatively minor differences may be exaggerated and defeat the measures that both parties support.

Subsistence Increase Voted College Veterans

WASHINGTON, D.C.—Congress gave its approval to an increase in subsistence allowances to veterans in colleges and universities on February 3.

The bill, which the House passed 370 to 6, raises the allotment to single veterans from \$65 to \$75. Married veterans with one dependent are to get \$105 and with two or more dependents, \$120. The present allowance of \$90 for married veterans takes no account of the number of dependents.

Supreme Court Rules on Oklahoma Race Case

WASHINGTON, D. C.—The U. S. Supreme Court recently ordered the state of Oklahoma to provide immediate legal education for Mrs. Ada Lois Sipuel Fisher, who had sought entrance to the University of Oklahoma Law School two years ago but was denied admission because of race segregation laws.

The court stated: "The petitioner is entitled to secure a legal education afforded by a state institution. To this time it has been denied her although during the same period many white applicants have been afforded legal education by the state. The state must provide it for her in conformity with the equal protection clause of the 14th Amendment and provide it as soon as it does for applicants of any other group."

On the basis of the court's decision, Mrs. Fisher filed application for admission to the university law school at Norman. A few hours later, the board of regents announced the establishment of a Negro law school at Lang-

ston University, the state's only Negro college.

Mrs. Fisher refused to accept the transfer and the case is to be appealed again to the Supreme Court. The establishment of the Negro law school, within forty-eight hours after the court's decision, was declared to be "in contempt of the Supreme Court of the United States. It is a Jim Crow school and cannot presume to provide equal opportunity."

Arkansas Accepts Negro

A Negro was enrolled in the University of Arkansas Law School on January 30, the first positive action taken by a southern state university to admit Negro students since the U.S. Supreme Court decision. The university announced that it would accept "qualified graduate" students.

Regional Medical College Proposed for Negroes

WASHINGTON, D.C.—After several months of consideration, the committee on regional education of the Southern Governors Conference favorably reported on the establishment of regional colleges at strategic locations throughout the Southern States.

The report stated: "It is apparent that no single southern state is financially able to supply the best educational facilities for all of its citizens. In certain specialized fields there are not enough students to justify establishment of separate schools in each state. It is apparent also that if the Southern States work together they can establish and maintain the very best in educational opportunities in all fields for all of their citizens regardless of race."

If details can be worked out, the first regional school under the new plan will be Meharry Medical College which has already expressed its willingness to become a publicly supported institution. Last year it provided training for 52 per cent of all Negro medical students.

The committee stated that in recommending the establishment of regional colleges it had not been influenced by the recent ruling of the Supreme Court which reiterated the decision in the Oklahoma case that states must provide equal educational facilities for whites and Negroes.

Pending College Entrance G.I.'s May Reenlist

WASHINGTON, D.C.—The Department of the Army has announced that military personnel in the army or air force who are eligible for G.I. benefits may reenlist with the understanding that "they will be discharged at any time subsequent to completion of their original term of enlistment in order to use their educational benefits."

Owing to the large number of veterans now in college, many cannot be admitted to the institution of their first choice. This new policy makes it possible for them to remain in the armed forces and thus postpone the date when they must begin their educational benefits under the G.I. bill. The law provides that veterans must enter into education or training within four years after the termination of World War II (July 1, 1947) or after their discharge, whichever is later.

While regular enlistments are for three, four or five years, G.I.'s may be discharged when the soldier presents a letter from a college official stating that he has been accepted.

Social Security Is Live Issue at Present

WASHINGTON, D.C.—The committee on education and social security of the American Council on Education on January 17 released a report of 165 pages entitled "People and Process in Social Security."

Interest in modifying existing social security legislation is mounting and some action may be taken late in this session of the Congress. The advisory council on social security appointed by the Senate finance committee held its second meeting on January 19, 20.

First Fulbright Scholarships

WASHINGTON, D.C.—On January 18, the first exchanges of students, professors and specialists under the Fulbright scholarship act were authorized by the President's board of foreign scholarships. This exchange will be between the United States and the Chinese and Burmese governments. The China groups will consist of 20 American professors, 20 graduate and 10 research students to study in Chinese universities and 30 Chinese professors and students to study in the United States. The Burma group will

be only six American professors and students for foreign study in institutions in Burma.

Catholic Students Quit Ohio College

BEREA, OHIO.—More than 50 students of Roman Catholic faith have decided to leave Baldwin Wallace College after members of the church hierarchy had protested the college's compulsory chapel and a required course in the senior year dealing with the philosophy of religion.

Dean Myron Wicke of the college stated there were 163 students of Roman Catholic faith among the college's total enrollment of approximately 1700 students. The college, more than a century old, derives support from the Methodist Church.

College officials have maintained that there will be no altering of the curriculum to remove features objected to by local Catholic clergy. Non-sectarian chapel services will be held twice a week for the student body as they have been since 1845. Candidates for a degree will be required to take the philosophy of religion course, college officials stated.

The incident which precipitated the entire argument began when Rita Mahoney, a Roman Catholic student, sought formal advice on the propriety of her attendance at philosophy of religion classes. Her request brought a ruling from Msgr. Vincent B. Balmat, chancellor of the Cleveland diocese, that Catholics "may not under any circumstances or pretext attend a class of this kind."

Urges Establishment of State University

ALBANY, N.Y.—The Commission on the Need of a State University in New York, which had been appointed by Gov. Thomas E. Dewey in 1946, recently agreed unanimously to recommend to Governor Dewey and the state legislature the establishment of a state university. This state university is to consist of a series of community colleges in various parts of the state, with at least two medical centers and other professional schools.

The commission, with Owen D. Young, retired industrialist, as chairman, consisted of thirty prominent civic and educational leaders.

FINANCIAL CAMPAIGNS

• **Tuskegee Institute** is adding an additional \$500,000 to its original endowment goal of \$2,000,000 as a result of a fire that recently destroyed the major portion of the laboratories and museum of the George Washington Carver Foundation on the Tuskegee campus.

• **Williams College** has launched an endowment and building fund campaign for \$2,500,000. A large share of the new funds would be used for modernizing present buildings on campus and the increase of faculty salaries.

• **University of Illinois** received a bequest of \$20,000 from the estate of the late Prof. John A. Fairlie, a faculty member for thirty-two years.

NAMES IN THE NEWS

W. H. Butterfield, educator and public relations executive, has been appointed vice president of DePauw University in charge of the department of financial promotion and public relations, according to an announcement by Dr. Clyde E. Wildman, university president. Mr. Butterfield took over duties of the newly created department on February 1.



Dr. Stephen B. L. Penrose Jr., special adviser on budgetary matters in the office of the Secretary of National Defense, has been named president of the American University of Beirut, Lebanon. He will succeed Dr. Bayard Dodge. Dr. Penrose becomes the fourth president of the largest of eight affiliated colleges providing education in six Near East nations.

Col. Allan M. Pope, former president of the First Boston Corporation, has been named chairman of the finance committee of the New York University Council, according to an announcement by Chancellor Harry Woodburn Chase of N.Y.U. Col. Pope will devote full time to this position as chairman of the finance committee.

Ernest Martin Hopkins, president of Dartmouth College from 1916 to 1945, was recently elected president of the National Life Insurance Company of Montpelier, Vt. Dr. Hopkins had been a director of the insurance company since 1933.

Dr. Alan Wil-
lard Brown, 37-
year-old assistant
to the dean of
Columbia Col-
lege, Columbia
University, has
been named to
succeed the late



John Milton Potter as president of the
Colleges of the Seneca-Hobart and
William Smith colleges. Dr. Brown
will take office at the end of the cur-
rent school year. He will be the sev-
enteenth president of Hobart and the
sixth president of William Smith.

R. A. Hawk has been named director
of accounts at Grinnell College. He
had been on the faculty, as well as a
former superintendent of city schools.

Donald M. DuShane, dean of men
at Lawrence College, has been ap-
pointed to the newly created position of
director of student personnel activities
for all students at the University of

Oregon. He will complete the current
academic year at Lawrence and begin
his new duties in June.

Henry L. Kamphoefner, professor of
architecture at the University of Okla-
homa, has been named dean of the
new school of architecture and land-
scape design to be established July 1
at North Carolina State College,
Raleigh. Professor Kamphoefner is a
member of the editorial advisory board
of COLLEGE AND UNIVERSITY BUSINESS.

Dr. Glen L. Clayton, Ohio State
University faculty member, has been
named president of Ashland College,
Ashland, Ohio. He will succeed **Roy
W. Bixler** next September. Dr. Bixler
will remain at the college as a member
of the faculty.

Dr. Joseph C. Morris has been ap-
pointed vice president for endowment
of Tulane University. Dr. Morris will
continue his academic duties as head of
the physics and biology department.

Edgar D. Dunning, business man-
ager of Governor Dummer Academy,
has been named president of the Asso-
ciation of Business Officers of Prepara-
tory Schools for 1948.

William B. Given Jr., president of
the American Brake Shoe Company
and a graduate of Yale University's
Sheffield Scientific School, has been
named chairman of a national commit-
tee of alumni to plan a long range de-
velopment of Yale financial resources.

Dr. William Richardson White, pas-
tor of the First Baptist Church of
Austin, Tex., has been named president
of Baylor University to succeed **Pat M.
Neff**, recently resigned. Dr. White will
take office March first.

Dr. Maurice O. Ross, president of
Butler University, was elected president
of the American Association of Urban
Universities at its recent annual meet-
ing. Vice president of the association
is **James Creese**, president of the Drexel
Institute of Technology; **Dr. David D.
Henry**, president of Wayne University,
was elected secretary-treasurer.

Dr. Charles Roger Watson, founder
and president emeritus of the American
University in Cairo, Egypt, died of
cerebral hemorrhage recently at Bryn
Mawr Hospital, Philadelphia. He was
74 years old at the time of his death.
He was an authority on the Arab
world and the Moslem religion.

Gen. Newell C. Bolton, chairman of
the board of Western Reserve Univer-
sity, died recently of a cerebral hemor-
rhage at his winter home in Camden,
S.C. He was 59 years of age.

Laurence F. Seaton, operating su-
perintendent of the University of Ne-
braska for the last twenty-seven years,
died of a heart attack January 2. He
was president last year of the Associa-
tion of Superintendents of Buildings
and Grounds of American Colleges and
Universities.

James Thomas Warren, president of
Carson-Newman College, died recent-
ly. He was 63 years old and had been
president of the college since 1927.

Dr. Donald B. Tresidder, 53, presi-
dent of Stanford University, died un-
expectedly in a New York hotel Jan-
uary 28. He had been president since
September 1943.

DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

Central Association

President: **T. E. Blackwell**, Washington
University; secretary-treasurer: **L. R. Lun-
den**, University of Minnesota.

Convention: May 17, 18, Hotel Chase,
St. Louis.

Eastern Association

President: **Henry W. Herzog**, George
Washington University; secretary-treasurer:
Boardman Bump, Mount Holyoke College.

Southern Association

President: **George R. Kavanaugh**, Berea
College; secretary-treasurer: **Gerald D.
Henderson**, Vanderbilt University.

Convention: April 23, 24, Hotel Tutweiler,
Birmingham.

Western Association

President: **William Norton**, University of
California; secretary-treasurer: **William
Brand**, Stanford University.

Convention: April 25-27, University of
Washington, Seattle.

Schools for Negroes

President: **V. D. Johnston**, Howard Uni-
versity; secretary: **L. H. Foster Jr.**, Tuske-
gee Institute.

Educational Buyers Association

President: **Gerald D. Henderson**, Vander-
bilt University; executive secretary: **Bert C.
Ahrens**, 45 Astor Place, New York, N. Y.

Convention: May 5-8, Deshler-Wallick
Hotel, Columbus, Ohio.

Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: **Paul H. Elleman**, Ohio State
University; secretary-treasurer: **A. F. Gal-
listel**, University of Wisconsin.

Convention: May 10-12, University of
Minnesota, Minneapolis.

Association of College Unions

President: **Douglas O. Woodruff**, Univer-
sity of Utah; secretary-treasurer: **Edgar A.
Whiting**, Cornell University; editor: **Porter
Butts**, University of Wisconsin.

Convention: April 29-May 1, Roanoke
Hotel, Roanoke, Va.

American College Public Relations Association

President: **Horace Renegar**, Tulane Uni-
versity; secretary-treasurer: **Max E. Han-
num**, Franklin and Marshall College.

Convention: June 23-27, Denver, E. D.
Whittlesey, University of Denver, convention
secretary.

National Association of College Stores

President: **A. W. Littlefield**, Barnes and
Noble, Inc., New York, N. Y.; executive se-
cretary: **Russell Reynolds**, 189 West Madison
Street, Chicago.

Convention: April 19-21, Hotel Pennsyl-
vania, New York City.

PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 41-71. Pages 72-76 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

Index to "What's New"

Pages 72-76

Key

- 790** Yale & Towne Mfg. Co.
Yale Compact Door Closer
- 791** Ampro Corporation
Silent 16 mm. Projector
- 792** The Prosperity Company, Inc.
Improved Pony Press Line
- 793** Vestal, Inc.
Anti-Slip Floor Wax
- 794** Clarke Sanding Machine Co.
Electric Floor Polisher
- 795** Applegate Chemical Co.
Hand Linen Marker
- 796** The Trane Company
Trane Unit Ventilator
- 797** Faries Mfg. Co.
Circline Fluorescent Lamps
- 798** Hotpoint, Inc.
Electric Ranges
- 799** Executone, Inc.
Multi-Purpose Sound Console
- 800** Holt Mfg. Co.
Holt Whirlwind Vacuum Cleaner
- 801** R. F. Nylen & Associates, Inc.
Slide Service
- 802** Denoyer-Geppert Co.
Kodachromes for Bacteriology
- 803** Operadio Manufacturing Co.
Operadio "Program Master"
- 804** Marsh Wall Products, Inc.
Marlite Polish

Key

- 805** Holub Industries, Inc.
Plastic Expanding Screw Anchors
- 806** George W. Weigl & Co.
Lifetime Ware
- 807** Empire Projector Corp.
Empire Sound King Projector
- 808** Plastishade
Plastic Window Shades
- 809** The B. F. Goodrich Co.
Ameripol Rubber Mats
- 810** Photoswitch, Inc.
Excess-Smoke Indicator
- 811** Plicote, Inc.
Fire Resistant Paints
- 812** Ranetite Mfg. Co.
Waterproofing Formula
- 813** U-C Lite Mfg. Co.
Portable Electric Hand Lamp
- 814** Du-Fold Mop Mfg. Co.
All Purpose Cleaning Mop
- 815** Fairfield Laboratories, Inc.
Germicide, Detergent
- 816** Tinsley Laboratories, Inc.
Portable Refractor
- 817** De Vry Corp.
De Vry "Bantam" Projector
- 818** Allied Radio Corp.
Knights 20 Watt Amplifier
- 819** Pillsbury Mills, Inc.
"Bakery Art"

**USE THIS
CARD** 

This card is detachable and is provided for your convenience in obtaining information on all items advertised in this issue or described in the "What's New" Section. See reverse side.

FIRST CLASS
PERMIT NO. 136
SEC. 510 P. L. & R.
CHICAGO, ILL.

BUSINESS REPLY CARD

No Postage Stamp Necessary if mailed in the United States

2 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS

Index to "What's New"

Continued

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821	Minwax Co., Inc. <i>"Products for Protection of Exterior Masonry"</i>
822	Stromberg-Carlson Co. <i>"Inter-Communicating Telephones"</i>
823	Safety-Scape Corp. <i>Safety-Scape</i>
824	Roderking Corp. <i>Evermark Dry Transfers</i>
825	Johns-Manville <i>"Ideas for Decorative Floors"</i>
826	Coronet Instructional Films <i>Rental Sources of Films</i>
827	H. J. Heinz Co. <i>Magic Onions Recipe Book</i>
828	Lee Metal Products, Inc. <i>Steam-Jacketed Kettle Bulletin</i>
829	Iceberg Refrigerated Locker Systems, Inc. <i>Iceberg Refrigerated Lockers</i>
830	The Duriron Co., Inc. <i>Bulletin 703</i>
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February, 1948

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☐ Six month Volume Index, July-December 1947

NAME	TITLE		
INSTITUTION			
ADDRESS	CITY	ZONE	STATE



RECENT IMPROVEMENTS IN STEAM GENERATION AND DISTRIBUTION

Now Widen Scope of **CENTRAL HEATING**



**Ric-wil Prefabricated
Insulated Piping brings
new standards of performance
to steam distribution systems
of educational building groups.**

**Modern Power Plant
engineering and
design is setting new
records in efficiency
of steam generation.**

Modern developments in steam generation and distribution have greatly expanded the field of Central Heating, making this service more practical than ever for educational, industrial or commercial groups, large and small housing projects, airports, institutional buildings—even entire cities.

The Modern steam plant is a marvel of technological development. Automatic controls and other devices for efficient fuel feeding and consumption extract every possible B.T.U. from the coal burned. Smoke abatement equipment helps efficiency and minimizes air pollution. Induced draft chimneys make it possible to forego high stacks. Architectural design makes the plant an attractive addition to any community.

Modern systems of steam distribution now pipe steam longer distances with lower heat losses than ever before. Our job at Ric-wil is the manufacture of such systems. It has been our constant aim to improve our product to keep pace with improvements in steam generation. Our research and development departments are engaged in a continuing search for better construction methods, greater efficiencies, lower costs.

Ric-wil Prefabricated Insulated Pipe Systems are now actually being installed *with steam pressure at 650 PSI with superheat*. Higher pressures are possible, thus opening up a vast new field of applications for Central Heating.

A combination of built-in features is responsible for this achievement. Full-welded and reinforced construction means pressure-tight conduit, assuring highest thermal efficiency by maintaining completely dry insulation. Conduit is permanently protected against ground conditions by double coating of high melting point asphalt, reinforced with asbestos felt.

The Ric-wil system of unit prefabrication eliminates costly field work and saves valuable installation time. Completely assembled units, engineered and specifically tailored for each project, are delivered to the job with couplers designed to facilitate field connections. Because of structural strength, 18" of ground cover is sufficient under highway loading—minimizing excavation and backfill. Ends of units are presealed, assuring dry interior under any weather or water conditions during installation.

Ric-wil Case History Booklet, Form 4713, shows how educational, cultural and medical institutions in Pittsburgh cooperate in a practical Central Heating system.

Available upon request to the Ric-wil Co., Cleveland, Ohio, Department 1082.

RIC-WIL
INSULATED PIPE CONDUIT SYSTEMS
THE RIC-WIL COMPANY • CLEVELAND, OHIO
CABLE ADDRESS: RICWIL, BENTLEY'S CODE

BILL

NOW!

CUT YOUR OVERHEAD

UNDERFOOT

up to 50%

USE

CAR-NA-VAR

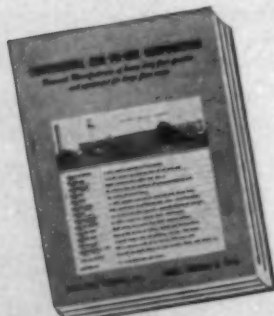
PRODUCTS



Yes, it's a proved fact! When you use the famous Car-Na-Var line of floor maintenance products, you can actually cut labor and material costs as much as 50%... save and still be assured of safe, better-looking, long-lasting floor surfaces!

The secret? The complete Car-Na-Var line of floor maintenance products provides *economy through quality!* Obviously, only through superior quality of product consistently maintained can complete satisfaction and long-range economy be assured. And, that's exactly what you get with Car-Na-Var products!

Every item in the Car-Na-Var line is made of the finest raw materials available... scientifically designed and manufactured to fit the job, not a price... guaranteed on a money back basis! Let Car-Na-Var "quality products" cut the overhead underfoot in your building! For complete information, call your Car-Na-Var representative, today... or contact us direct.



FREE Catalog

Everyone interested in more efficient, more economical maintenance of floors should have a copy of the new Car-Na-Var catalog. Write for yours today. No obligation.

CAR-NA-VAR

MAINTENANCE MATERIALS AND EQUIPMENT

for greater efficiency... certain economy!

CAR-NA-LAC—a special, lacquer-like, self-polishing (wax type) floor finish. Out-wears ordinary water wax 2 to 1.

CONTINENTAL "18"—same as Car-Na-Lac with addition of 38% more solids. Provides higher gloss and cuts in half number of applications required.

CAR-NA-SEAL—100% phenolic resin seal for wood and other porous floors.

CAR-NA-CRETE—amazing rubber enamel for concrete floors (alkali-proof).

CAR-NA-KLEEN—powerful new liquid cleaner for most surfaces. Especially good for floors, walls, blinds, etc.

"Silent Chief" FLOOR MACHINE



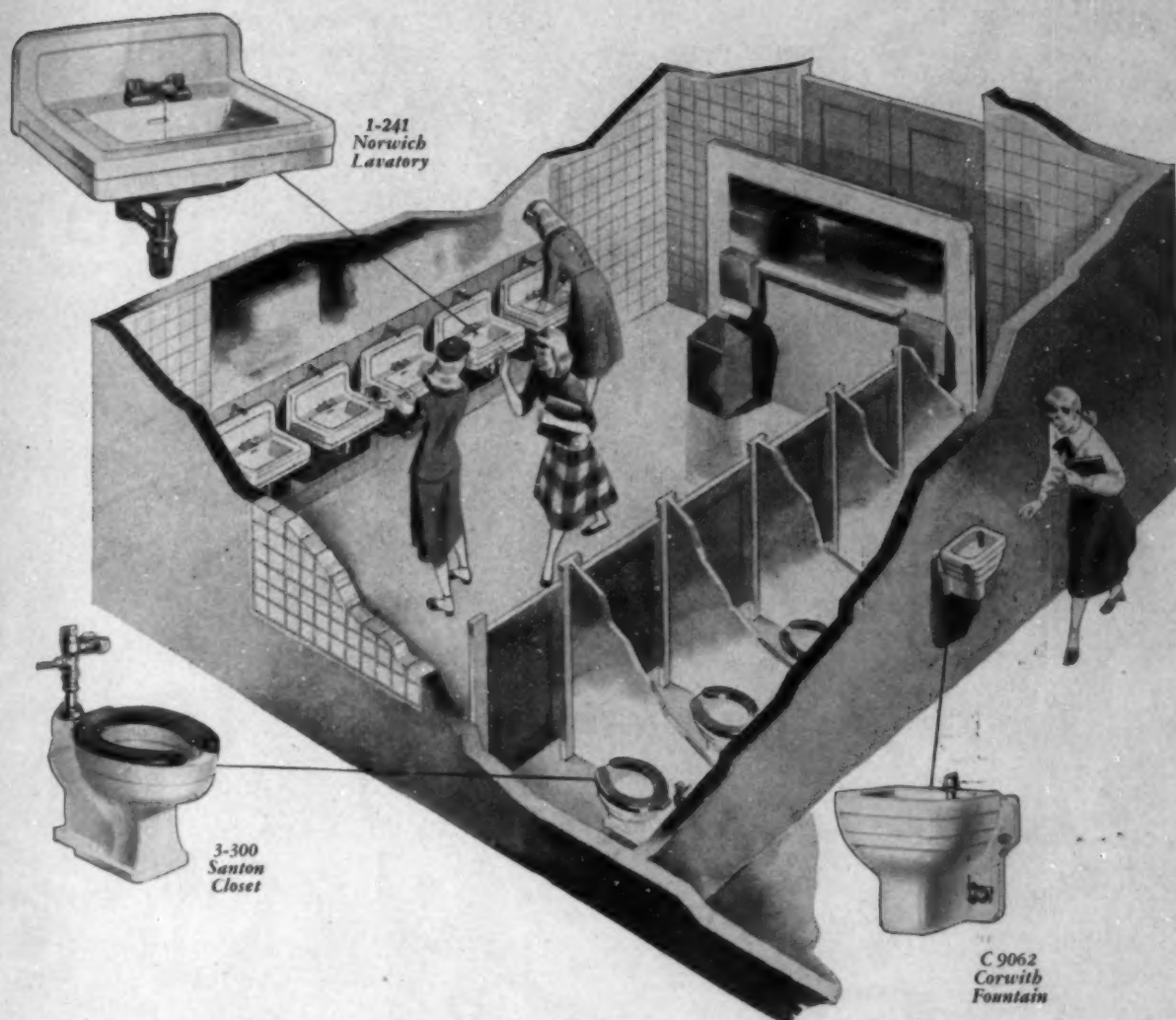
CAR-NA-VAR HEAVY DUTY VACUUM CLEANER



CAR-NA-VAR WALL WASHING MACHINE

Saves 50% of time and labor.
Saves 90% cleaning compounds.
Saves frequent repainting.
One or two man machine.
Easy, simple to use.
Washes walls clean—no streaks, laps or holidays—a complete portable, non-electric unit for all buildings... all surfaces.





CRANE QUALITY PLUMBING for every school requirement

The broad line of Crane plumbing fixtures includes a type and style for every school need. And the famous *Crane quality* is evident throughout.

It results in extra health safeguards to protect the students in your care ... extra strength to withstand years of hard school usage. It gives you *Dial-ese*, the amazing faucets that turn as easily as the dial on your radio.

Easy maintenance is another Crane extra. With *Dial-ese*, for example, one standard cartridge unit fits *all* Crane faucets. Comes time for replacements, you just slip out the old, slip in the new!

See your Crane branch, wholesaler, or plumbing contractor for full information on the Crane school line. You'll find them helpful whether you are planning a new plumbing installation or modernizing your present facilities.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5
PLUMBING AND HEATING •
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

WOOD *unchallenged for grace and charm!*



CARROM DORMITORY SUITE "Y"—The simple yet dignified character of this suite makes an exceptionally attractive and "homey" room . . . Ideal for study and relaxation.

CARROM FURNITURE CRAFTSMEN

Build FOR THE DECADES!

It is not enough that the material used for institutional furniture possess a mechanical strength of *highest* value in its ability to resist bending or compression. It should also possess that intimate and appealing beauty we sometimes define as grace and charm.

Wood is the one material — and the only material — that meets both these requirements. It is the one material of great strength that lends itself to an ease of manipulation that makes possible basic harmony and graceful lines in the finished furniture product.

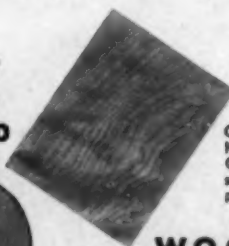
And Carrom-built furniture is especially desirable for still other reasons. Above all, it is made *exclusively* for institutional use. It is built to have the *extra strength* in posts, legs, stretchers and joints that hard institutional use requires. It is made with a view to an institution's budget requirements.

Select for strength, for economy, basic harmony, for grace and charm and you will choose Carrom Fine Wood Furniture, made by craftsmen who "build for the decades".

CARROM INDUSTRIES INC., LUDINGTON, MICHIGAN

New York Office: 19 W. 44th St., Ralph Berg • Chicago Office: 1503 N. Sedgwick Ave., James L. Angle

**CAREFULLY
SEASONED
HARDWOOD**



Only the most select, close-grained Northern Hardwoods are used in Carrom construction . . . expertly seasoned and kiln dried in our own plant, under the close supervision of "Masters of Wood"!

CARROM



**WOOD FURNITURE
FOR DORMITORY SERVICE**

How to Improve Lighting

...without adding lights!



Glidden
Sight Perfection

IMPROVES VISIBILITY
PROMOTES SAFETY
BUILDS MORALE

SPRAY-DAY-LITE

AND BRUSH-DAY-LITE

MAXIMUM LIGHT REFLECTION
1 COAT DOES JOB OF 2
WASHES LIKE TILE
LASTS LONGER

● It is an established fact—proved in schools and colleges everywhere—that Glidden can show you how to improve lighting without adding lights. The simple answer is the scientific use of white and colors in Glidden **SPRAY-DAY-LITE**, according to a *Sight Perfection* painting plan which Glidden experts will design especially for your building.

Sight Perfection and **SPRAY-DAY-LITE**, America's fastest-selling interior maintenance paint, have increased lighting efficiency as much as 102% by actual light meter readings! In your building, better lighting achieved this way can save you important money on light bills. And at the same time reduce eyestrain and fatigue—create safer, pleasanter conditions for students and teachers. For 18 years, since establishing the paint industry's first laboratory devoted exclusively to research on functional color, Glidden has been developing this service which is now offered to you without charge. Start things moving by returning the coupon below today!



Glidden
Pacemaker in Paints

THE GLIDDEN COMPANY, Dept. FF-2
11001 Madison Ave., Cleveland 2, Ohio

- ☐ Please send literature to indicate the practical and thorough nature of the *Sight Perfection* painting program you will design especially for us.
- ☐ You may have your representative call and demonstrate **SPRAY-DAY-LITE** in our premises without obligation on our part.

NAME

SCHOOL TITLE

ADDRESS

CITY, ZONE, STATE



**SAVING 50,000,000
GALLONS OF WATER
EVERY YEAR!**

The Merchandise Mart of Chicago replaced 250 automatic flush tanks on urinals with Sloan Flush Valves. This single installation saves the Building fifty million gallons of water annually—enough to fill the entire structure to over-flowing every 5½ years even though each floor has 210,000 square feet of floor space.

Sloan Flush Valves invariably cut water bills. For instance: installing Sloan Flush Valves in the Liverpool Building, San Francisco, saves \$240.00 a year on water bills. Forty-eight new Sloan valves in the Royal Insurance Building (San Francisco) saves \$216.00 a year. Normandie Apartments (Seattle) cut the water bill \$780.00 a year by installing eighty-five Sloan valves. In the Belleville (Illinois)

Township High School twenty-six Sloan valves save \$1,080.00 annually. By installing twenty-three Sloan urinal flush valves, the Medical and Dental Arts Building, Chicago, saves more than six million gallons of water per year, *plus* 16,000 k.w.h. of electricity to pump it from the city main to the 24th floor, *plus* more than 11 tons of coal.

... Small wonder there are more Sloan Flush Valves sold than all other makes combined.

sloan *Flush* **valves**
4300 W. LAKE STREET CHICAGO • ILLINOIS



*This ride cost
Mr. Higby \$631.40*

THIS GENTLEMAN . . . let's call him Mr. Higby . . . was riding a merry-go-round of floor maintenance costs. Each week his floors got a coat of wax. Soon it had to be scrubbed off, then put on all over again . . . to the tune of \$631.40 a month.



LOOKING INTO THE VICIOUS CIRCLE Mr. Higby discovered that waxings didn't last. Replacement coats piled up, became slippery, took hours to remove. Costs were sky-high . . . and so were accidents. So he called in a Legge floor engineer.



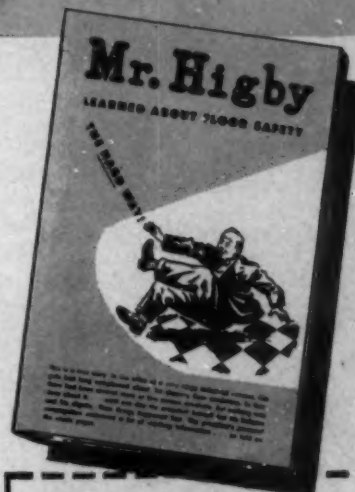
THE MERRY-GO-ROUND BRAKES DOWN The Legge man showed Mr. Higby how to put the brake on costs: One application of Legge Non-Slip polish plus regular moppings. No weekly waxings, no scrubbings. Non-Slip floors at savings of 82%!

HOW MUCH OF YOUR OVERHEAD IS UNDERFOOT?

Old-fashioned floor maintenance often pads overhead with many hard-to-trace "hidden" costs. You'll find a frank discussion of how to combat them in our free booklet, "Mr. Higby Learned About Floor Safety the Hard Way."

It tells how a Legge technician engineers a money-saving program to your needs . . . how Legge reduces slippery floor accidents up to 95% for leading organizations . . . how this safety plan is recommended by many casualty insurance companies.

IT'S YOURS WITHOUT OBLIGATION You'll find this book worthwhile reading. For your copy, clip the coupon to your letterhead and mail.



LEGGE
SYSTEM

OF NON-SLIP FLOOR MAINTENANCE

WALTER G. LEGGE COMPANY, INC.

New York • Boston • St. Louis • Chicago • Ft. Worth • Seattle • Cleveland
Los Angeles • Washington, D. C. • Denver • Rochester • Pittsburgh • Detroit

WALTER G. LEGGE CO., INC.
11 West 42nd St., New York 18, N. Y.
360 N. Michigan Ave., Chicago 1, Ill.
Gentlemen:
Please send me your free book, "Mr. Higby Learned About Floor Safety the Hard Way."

Signed _____
Title _____
Type of Floor _____
Area _____ sq. ft. C14

*For popular breakfasts
Your very best bet
Is this economical
QUAKER SEXTETTE!*



**ALL SIX OF THESE READY-TO-EAT QUAKER CEREALS
NOW AVAILABLE IN HANDY INDIVIDUAL SIZES**

Yes, now you can suit all cereal preferences with a quality Quaker cereal.

If it's shredded wheat fans you're serving, they'll go for Muffets, the round shredded wheat that's extra crisp and tender. Or they may prefer Quaker Puffed Wheat and Puffed Rice Sparkies, the famous "shot-from-guns Puffed Grains." If corn, rice or wheat flakes are their choice,

they'll appreciate the fresh, tasty crispness of Quaker Corn Flakes, Rice Flakes and Wheat Flakes.

Let your customers take their pick of these delicious Quaker cereals. Serve all six in the individual packages that keep them temptingly crisp and fresh. Quaker's handy six can help you serve meals you get praised for—and at a lower cost.

The Quaker Oats Company, Chicago 4, Ill.

Garland Does It Again!

**Amazing New
Deep Fat Fryer
NOW
READY**

**Much Faster—More Efficient—
Greater Savings in Fat!**



This new Garland fryer gives sensational *speed* and *quick recovery* with a *minimum of grease saturation* in food.

It's improved 14 ways. You get *better heat utilization*, making possible *faster frying* and *more production*. You get *reduced gas consumption*, *reduced cold zone temperature*, *longer life for fat* which



means considerable savings in fat costs—many other advantages. Quality-made everywhere. Available with back extension for Garland battery. Available for use with manufactured, natural and L-P gases. Automatic safety pilot furnished as standard equipment when L-P gas is used. Approved by American Gas Association Laboratories. See your Garland dealer or write us direct.

GARLAND*

THE TREND IS TO GAS
FOR ALL
COMMERCIAL COOKING

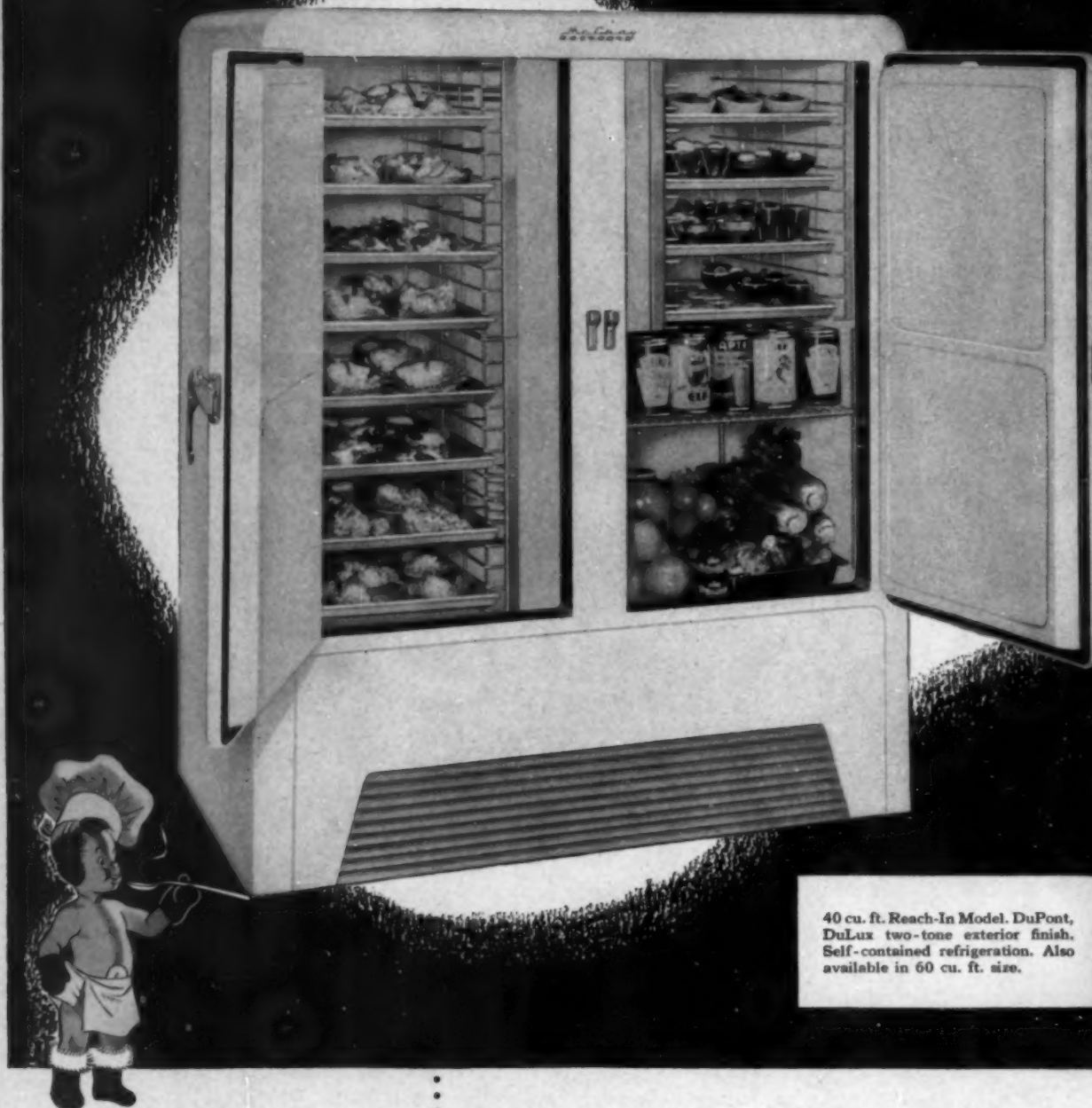
Heavy Duty Ranges • Restaurant Ranges • Broilers • Deep Fat Fryers • Toasters
Roasting Ovens • Griddles • Counter Griddles

PRODUCTS OF DETROIT-MICHIGAN STOVE CO., DETROIT 31, MICHIGAN

*REG. U. S. PAT. OFF.

GO MODERN WITH

McCray
KOLDFLO



40 cu. ft. Reach-In Model. DuPont, DuLux two-tone exterior finish. Self-contained refrigeration. Also available in 60 cu. ft. size.

McCray KOLDFLO insures food freshness

EXTRA Service Features

- Rugged, all-steel welded shell exterior.
- Sanitary, one-piece porcelain interior — no cracks or crevices.
- Convenient, full-length, full-visibility service doors.
- Adjustable, removable shelves.

This big, sturdy McCray KOLDFLO Refrigerator provides excellent, full-time protection to all foods... keeps them at the peak of freshness, flavor and nutrition... reduces spoilage to a minimum. The constant *cold flow* of air rises up under the shelves, against the bottom of products. No direct blasts of cold air strike food surfaces to cause drying or withering or loss in flavor. For complete details, write...

McCRAY REFRIGERATOR COMPANY • 875 McCRAY COURT • KENDALLVILLE, INDIANA

PFAELZER BROTHERS FEATURE EVERYTHING IN MEATS

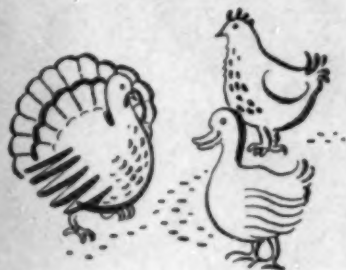
BEEF



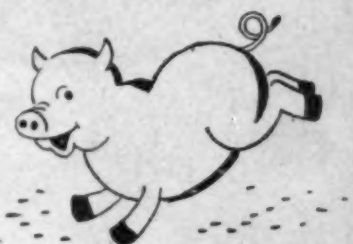
LAMB



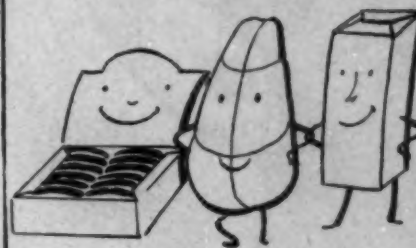
VEAL



POULTRY



PORK



PACKAGED PROVISIONS

A COMPLETE LINE OF SATISFYING, LABOR-SAVING, LOW-COST ITEMS IDEALLY SUITED FOR SCHOOLS AND COLLEGES

Looking for meat entrees for your menus that are LOW in cost and at the same time, tender, tasty—satisfying:

Interested in procuring meat items that add VARIETY to your menu and SAVE BOTH TIME AND LABOR?

We can supply them. In fact we already do, to schools and colleges throughout the nation. Our PERSONALIZED SERVICE enables you to achieve absolute FOOD COST CONTROL because it makes a specialty of filling orders to your exact

specifications. It assures UNIFORMITY of quality and weight averages. Our superior trim means PLUS VALUE on every purchase.

We shall be glad to work with you on your food buying problems and to have an experienced representative call.

Pfaelzer Brothers, School or College Division
Union Stock Yards, Chicago 9, Illinois

Gentlemen:

Please send me free of charge the items checked:
☐ Illustrated Market Guide and Price List ☐ Personalized Service Booklet ☐ Meat Charts

Name _____ Title _____
School _____
Address _____
City _____ State _____

PFAELZER BROTHERS

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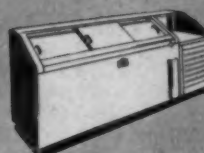
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 SPECIFY WOOD Finish and COLOR of
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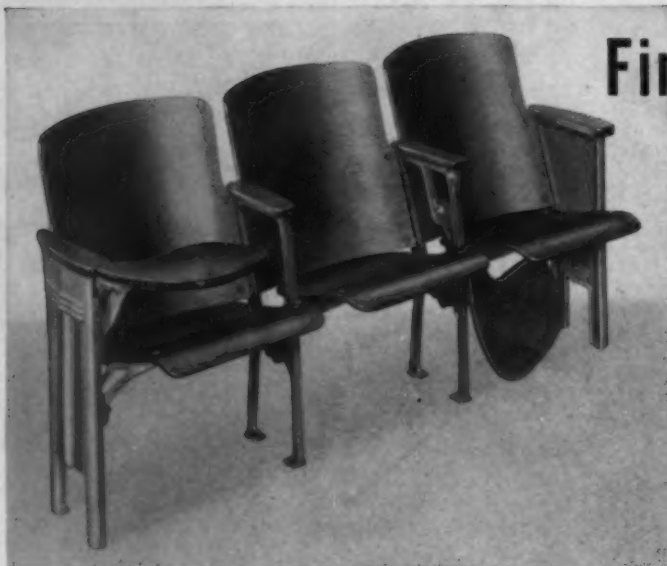
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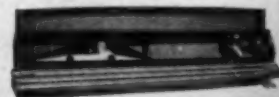
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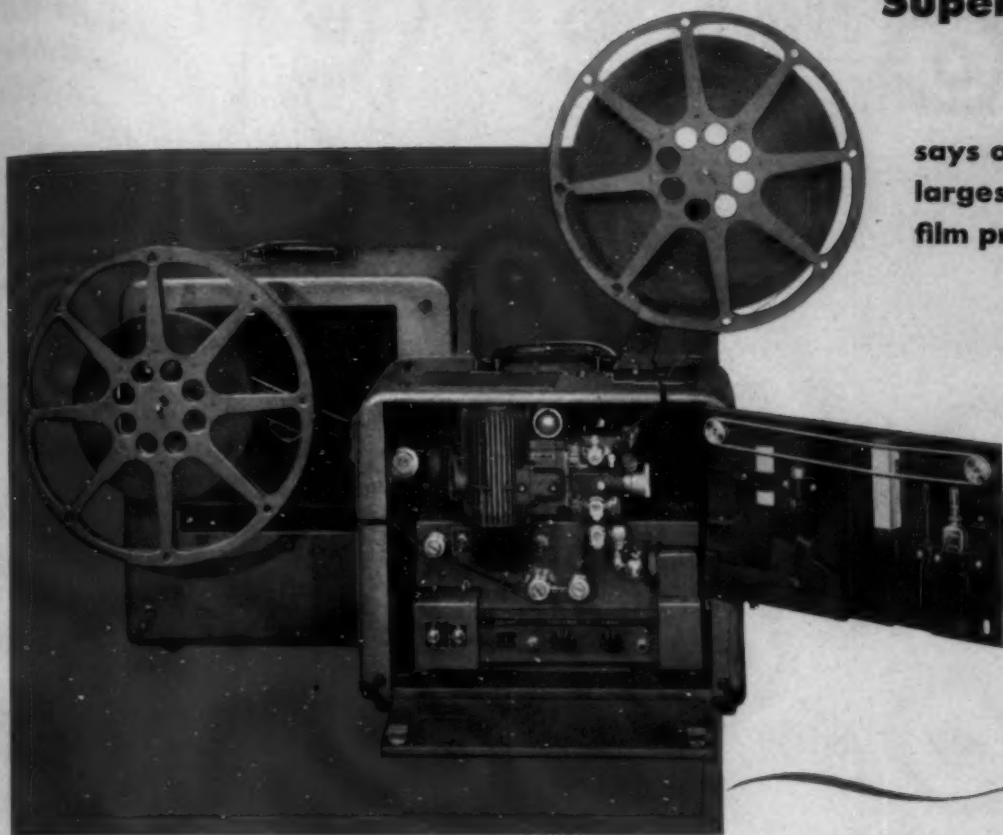


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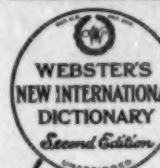
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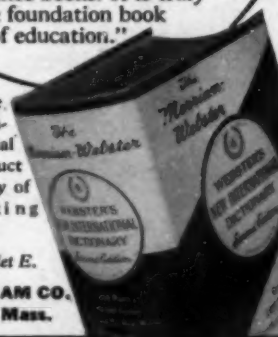
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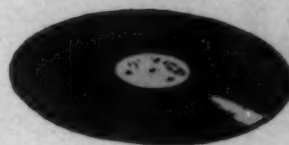
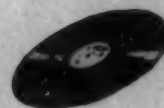


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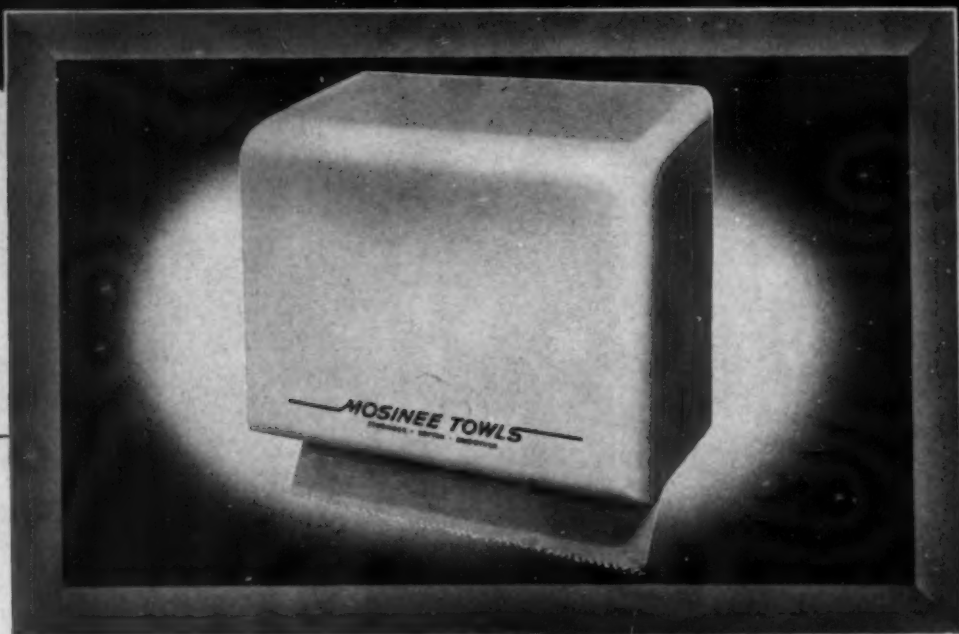


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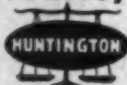
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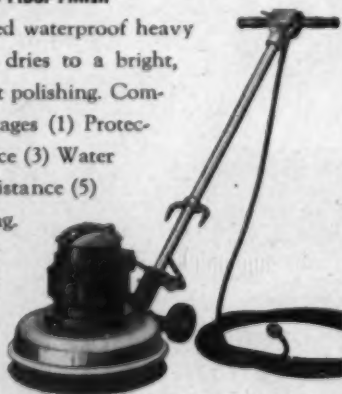
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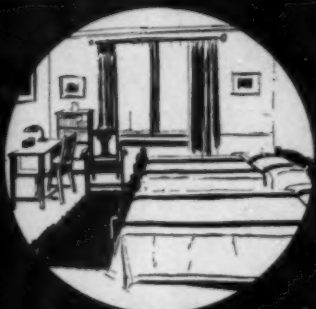
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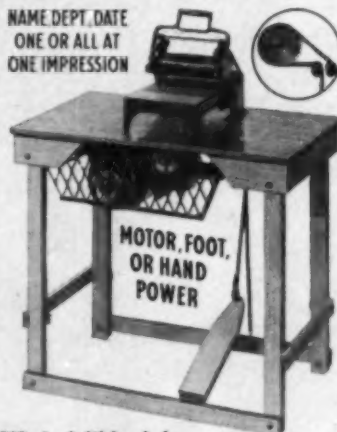
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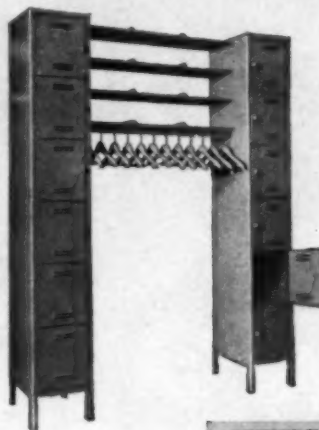


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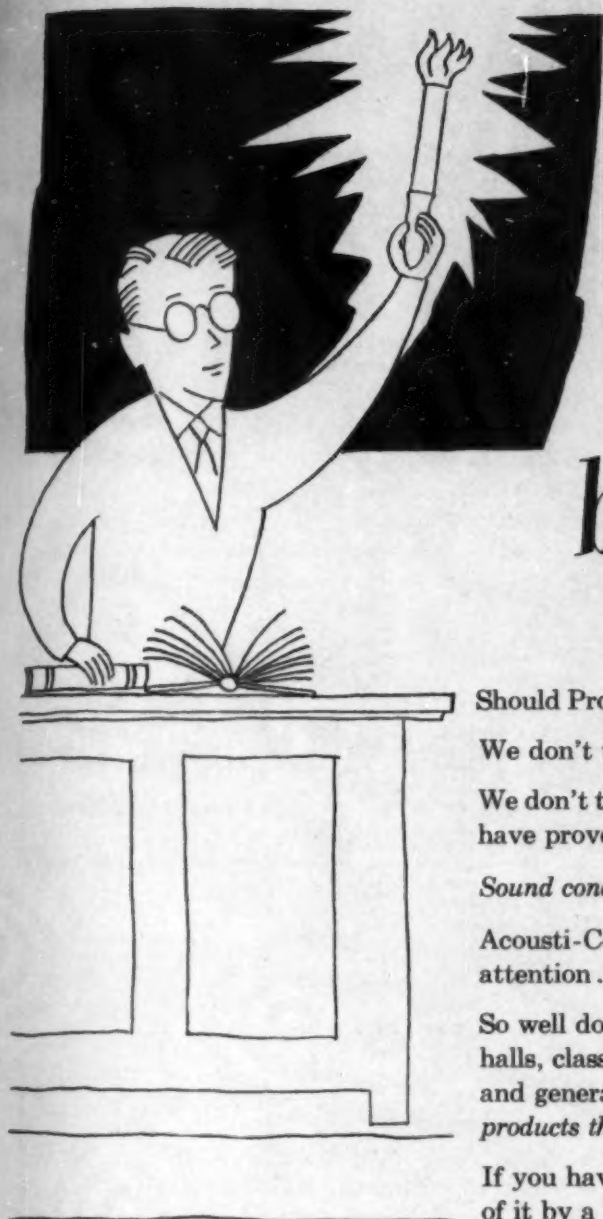
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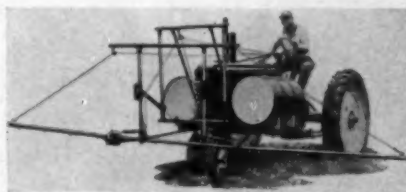
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• The Martin-Senour Co., Chicago • The Sherwin-Williams Co., Cleveland

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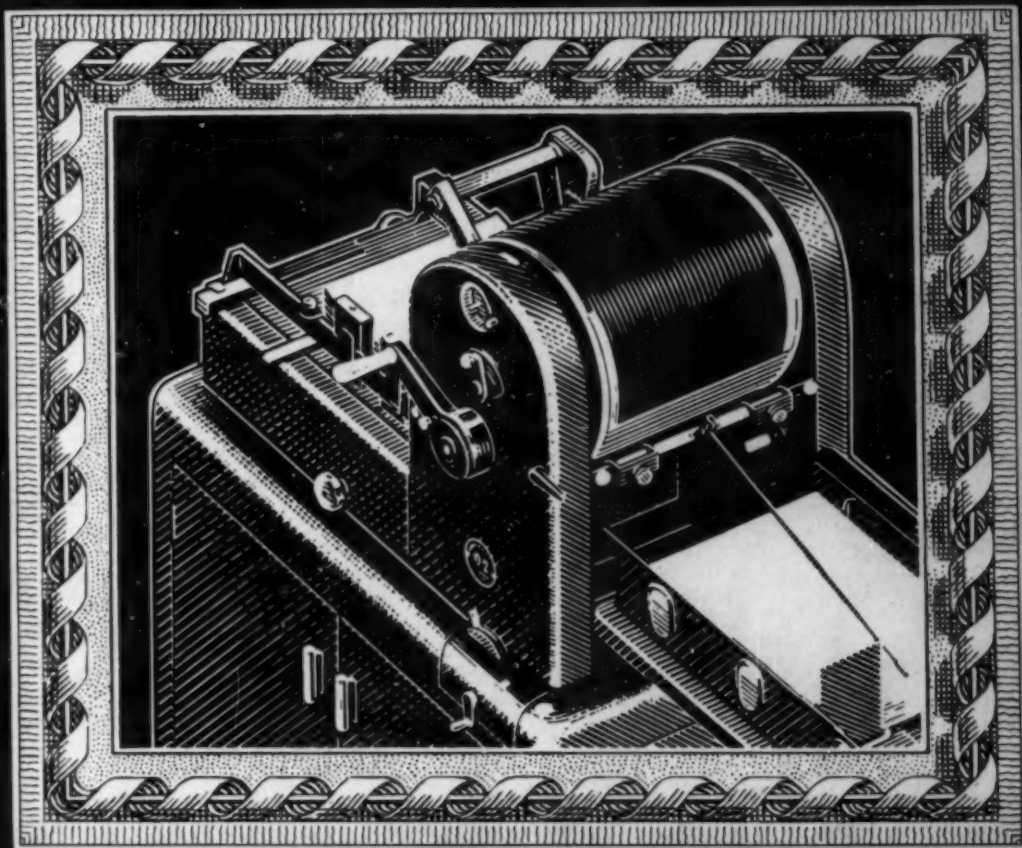
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WHAT'S NEW

FEBRUARY, 1948
 Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 40. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your request to the manufacturer. If you wish other product information, just write us and we shall make every effort to supply it.

Yale Compact Door Closer

The new Yale Compact Door Closer is the result of new precision tools and machinery and new types of measuring devices which made possible radical



changes in surface door-closer design, construction and operation. The new closer is small in size, simple in design and because of the elimination of the bulges at the base is known as Yale's "Hipless" Compact Door Closer.

Improvements in operating structure include a 180 degree checking range which keeps the door always under control by means of a rotary piston but contains only one moving part; the powerful-flat-ribbon clock-type spring, aided by the leverage of the arms, which automatically closes the door; the rotary piston turning on the axis of the shaft against the checking oil which controls the door throughout the full closing swing and the regulation of the closing speed by the flow of oil through the ports of a dual valve.

The unit was tested for several years in actual use before all new features were finally adopted and full production planned. The Compact Door Closer offers fully controlled closing, two-speed adjustment, noiseless operation and easy installation. It is leakproof and requires minimum upkeep. Yale & Towne Mfg. Co., Dept. CUB, Stamford, Conn. (Key No. 790)

Silent 16 mm. Projector

The new "Imperial" silent 16 mm. projector was recently announced by the Ampro Corporation. It is light, compact and easily portable while provid-

ing maximum illumination with smooth, silent performance. The new model has the Ampro Swing-Out-Gate which permits easy inspection and cleaning of aperture plate and pressure shoe. It also has the new Cordomatic Type Power Cord Attachment which rewinds automatically in the base, permitting the unwinding of just the amount of cord required.

A still picture button permits stopping any frame indefinitely, the automatic safety shutter prevents damage to the film and film movement can be reversed by switch without stopping the projector. A pilot light facilitates threading and operation in a darkened room and a powerful fan provides ventilation of the high wattage lamps. The Imperial is equipped with 2 inch coated super projection lens, speed F:1.6 and can be used on both AC and DC. It is finished in bronze and enclosed in a luggage type case with a 400 foot reel and standard accessories. Ampro Corp., Dept. CUB, 2835 N. Western Ave., Chicago 18. (Key No. 791)

Improved Pony Press Line

Prosperity's line of Pony presses has been redesigned for improved service and appearance. The PO models have an enlarged base which gives better balance to the machine and allows more room for maintenance and adjustment. All new models have the new hammer-finish tables and completely flush, push-button controls which are adjusted for finger-tip operation in lowering and raising the upper buck. The new units are more attractive in appearance as well as more efficient in operation. The Prosperity Company, Inc., Dept. CUB, Syracuse 1, N. Y. (Key No. 792)

Anti-Slip Floor Wax

The new Vesta Gloss floor wax has been approved by the Underwriters' Laboratories. It is non-tacky, even in hot weather, anti-slip and produces a long-wearing wax finish, even where traffic is heavy. It is designed for use on all types of floors: terrazzo, asphalt tile, rubber tile, linoleum, tile, wood and composition. Vestal Laboratories, Inc., Dept. CUB, 4963 Manchester Ave., St. Louis 10, Mo. (Key No. 793)

Electric Floor Polisher

The new Clarke electric floor polisher is especially designed for maintenance of small areas. It is suitable for laboratories, kitchens, offices and other smaller areas where a large machine is not practical.

The high speed rotating brush action of the machine burnishes wax deep into the floor covering, leaving no surface accumulations. This gives a high luster to the waxed flooring and longer wear for each application. The unit weighs only 11½ pounds, is compactly designed for economy of storage space and has a die-cast aluminum housing. It operates on 110 volt AC or DC and is constructed for dependable service. Clarke Sanding Machine Co., Dept. CUB, Muskegon, Mich. (Key No. 794)

Hand Linen Marker

The new Applegate automatic linen marker is a hand stamper sturdily constructed of chrome metal. It can be held securely in place with one hand while the other hand operates the plunger. Designed for use where the larger hand and foot operated machines are not needed, the hand stamper has the same dies used on the larger machines. They are hand tooled from solid metal for long wear and efficient marking. The new



stamper should prove useful in marking gymnasium equipment, dormitory and other residence department linens and for similar marking requirements. Applegate Chemical Co., Dept. CUB, 5630 Harper Ave., Chicago 37. (Key No. 795)

Trane Unit Ventilator

The new Trane Unit Ventilator not only is new as to cabinet design but also has been completely redesigned as to engineering and mechanical principles. The cabinet, designed by Brooks Stevens, industrial designer, has rounded corners and straight lines which make it unobtrusively attractive as well as easy to keep clean. It is sturdily constructed of heavy furniture steel, reenforced throughout, and finished in enamel. A scuff plate runs across the entire front of the unit as a protection against scratching.

The new resilient belt drive mechanism, mounted in rubber at all points of stress, permits the use of standard motors, thus assuring trouble-free operation. The heating element has also been improved and fans have been redesigned for greater smoothness and silence in operation. For ease of maintenance, the cabinet fronts consist of three easily removed panels, fastened to the unit by cam loc's. Removable panels are also provided on the fan scrolls and a new removable louver assembly is now part of the wall intake box simplifying installation as well as maintenance and cleaning. The new unit has been redesigned throughout for simplicity and increased efficiency. The Trane Company, Dept. CUB, La Crosse, Wis. (Key No. 796)

Circline Fluorescent Lamps

Two new desk or end table lamps with 32 watt circline fluorescent bulbs have been announced. Both models are equipped with 90 per cent or better power factor correct ballast, radio condenser and manual starting switch.

Model No. 20101, illustrated, is 19



inches high with a 6 inch diameter base. The shade is 14¼ by 4 inches in size. The lamp is finished in satin chrome and gold. Model No. 20103 is 17 inches high with a 7¼ by 4½ inch base and a shade 14 by 3 inches. It is finished in rippled gray and chrome or electro-

plated statutory bronze and has a removable receptacle which can be used for pen and pencil rest, as a clip or pin dish or as an ash tray. Faries Manufacturing Company, Dept. CUB, Decatur, Ill. (Key No. 797)

Electric Ranges for Home Economics Units

The new Hotpoint Masterpiece electric range has several engineering refinements which should make it of interest to those responsible for home making courses. Its new streamlined design makes it attractive in appearance while its sealed heat oven, faster heating and cooling action and completely automatic operation make it interesting from a teaching standpoint. The new model provides 33 per cent more surface cooking capacity and the automatic temperature controls range from 150 to 550 degrees.

Other features of the new range include a 7 quart cooker with heating unit designed for lifting to the top as a fourth cooking unit, automatic lights to show heat position on top units, automatic white oven signal light, fluorescent light on the backsplash, a broiler designed for speed cookery, a warmer drawer and large storage drawers. The range should be of interest for teaching and particularly in those areas where electricity is the principal source of heat and power. Hotpoint, Inc., Dept. CUB, 5600 W. Taylor St., Chicago 44. (Key No. 798)

Multi-Purpose Sound Console

General announcements to all classrooms or departments, special programs of music or talks and voice paging are possible through the installation of Executone's new multi-purpose sound console. This new console, model P-20, contains, in a single cabinet of selected mahogany veneer, all the central control elements needed in a sound system requiring up to 50 watts. Attractively designed, the new model is completely functional and permits the use of any number of microphones with their associated controls located in segregated departments.

The user may speak from any microphone location by merely pressing one button. An automatic system signals other microphone control stations. Paging or announcements can thus cut in, when necessary, on a music program, for instance, that might be in progress. The automatic record changer handles 10 and 12 inch records in any sequence and turns itself off after the last record is played. The console contains a monitor speaker with four-step volume control. Executone, Inc., Dept. CUB, 415 Lexington Ave., New York 17. (Key No. 799)

Holt Whirlwind Vacuum Cleaner

The new Holt Whirlwind Industrial Vacuum, Model VA 20, for both wet and dry pickup, is designed to meet every



maintenance need. As a dry vacuum it handles all dust and general clean-up problems and is efficient for wet pickup in scrubbing and rug shampoo operations. It has 18 attachments and accessories to cover all needs.

This heavy-duty machine is unusually quiet in operation and has a two-stage fan mounted below the motor to eliminate much of the sound. The unit has three solid rubber casters which give it firm, three-point support on rough or uneven surfaces and make it easily portable. It is quickly adaptable to either suction or blowing and has a 15 gallon tank capacity. It is built of heavy gauge metal, finished in baked, crackle finish with rust and corrosion proof rubber enamel as inside finish. It has a powerful 115 volt grease-sealed motor. Holt Mfg. Co., Dept. CUB, 20th & Grove Sts., Oakland 12, Calif. (Key No. 800)

Slide Service

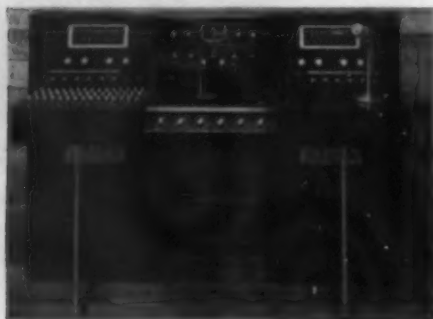
A new service for the making of slides for teaching and other purposes is now available. Negatives up to 4 by 5 inches can be accepted for reducing to 35 mm. black and white slides, unmounted or mounted in cardboard frames. R. F. Nylen & Associates, Dept. CUB, 29 S. La Salle St., Chicago 3. (Key No. 801)

Kodachromes for Bacteriology

A complete set of 2 by 2 inch slides of photomicrographs in color has recently been announced for use in teaching bacteriology. The set is complete, sixty-five different plates being listed, all available either in cardboard mount or glass binder. Denoyer-Geppert Co., Dept. CUB, 5235 Ravenswood Ave., Chicago 40. (Key No. 802)

Operadio "Program Master"

The new Operadio "Program Master" is a central sound control system which operates through loud-speaker outlets in selected areas. It has a dual channel sound control system; thus two



programs may be transmitted simultaneously to different rooms or groups of rooms and an optional intercommunication panel permits two-way conversations with selected rooms without interference with the program channels. Designed for systems requiring from 45 to 90 loud-speaker outlets, the unit utilizes a high fidelity 50 watt amplifier for each channel.

The standard Program Master "60" incorporates one AM-FM radio, a dual speed transcription player, 60 switches for room selection, two 50 watt amplifiers, two "Program Selector" panels, a "Control" panel, a microphone and is provided with six inputs. An emergency switch permits the connecting of all speakers instantaneously, regardless of programs in operation. The unit is housed in an all-metal console finished in mahogany brown and is 61 inches wide, 21½ inches deep and 43 inches high. **Operadio Manufacturing Co., Dept. CUB, St. Charles, Ill. (Key No. 803)**

Marlite Polish

Marlite Polish is a new product designed to clean, wax and polish in one operation. It forms a lasting, protective, high-gloss film on smooth wood, plastic or metal surfaces. Non-inflammable and non-explosive, Marlite Polish has a base of Carnauba wax and can be used on furniture, refrigerators, plastic-finished wall and ceiling panels, automobiles, and other smooth surfaces. **Marsh Wall Products, Inc., Dept. CUB, Dover, Ohio. (Key No. 804)**

Plastic Expanding Screw Anchors

The new Sandscott plastic expanding screw anchors are designed for tremendous holding power, for simplicity in the anchoring of screws and to reduce cost. The overlapping internal and external slits give "concertina" expansion

for dependable holding in any material. They can be used in any type of material with standard wood and lag screws. The anchors are resistant to water, moisture, weather and acids, have high impact strength, are simple to use without any special tools and are inexpensive. They are available in seven sizes and can be easily cut to any length required. **Holub Industries, Inc., Dept. CUB, Sycamore, Ill. (Key No. 805)**

Lifetime Tableware

Lifetime tableware, as its name implies, is designed to be practically indestructible. Molded from Melmac, an odorless, tasteless, nontoxic plastic, Lifetime Ware does not chip, crack or craze. It is not affected by food acids or washing compounds and may be boiled for sterilization.

The new ware is carefully molded, is functional and modern in design and has a fine luster. It is available in two attractive colors, Caribbean Blue and Bermuda Coral, and should be of particular interest because of its indestructibility as well as its fine appearance. Residence halls as well as cafeterias might find it an answer to some of their problems. Lifetime Ware is manufactured by Watertown Mfg. Co., Watertown, Conn., and distributed by **George E. Weigl & Co., Dept. CUB, 230 Fifth Ave., New York 1. (Key No. 806)**

Empire Sound King Projector

The new Empire Sound King is a 16 mm. projector designed for perfect performance both visibly and audibly. It is light in weight, simple in operation and low in cost. The use of new materials of high tensile strength and the new design which makes the carrying case its own chassis save weight and the advanced engineering principles permit high precision in mass production methods.

The elimination of moving parts achieves simplicity in design and operation. The streamlined threading procedure and fewer moving parts make the Sound King easy on film and the controls are recessed in a single panel. The projector can be used for either sound or silent films. The cases for both speaker and projector are made of aluminum in gray crackle finish and the sturdy hardware accessories are finished in satin chrome. All bearings are sealed in for permanent lubrication. The unit is designed to achieve professional performance in brilliant projected images and high fidelity sound reproduction. **Empire Projector Corp., Dept. CUB, 60 McLean Ave., Yonkers, N. Y. (Key No. 807)**

Plastic Mesh Window Shades

The new Celanese Plastic Mesh Vm-lite window shades offer the protection of ordinary window shades while letting light into the room. They are cheerful in appearance and effective in screening against glaring light. The new shades are easy to clean because the Vm-lite surface is washable. The material will not support fire or combustion and the plastic weave and plastic film coating are long wearing and durable. **Plastishade, Dept. CUB, Yonkers, N. Y. (Key No. 808)**

Ameripol Rubber Mats

Drainboard and stove top mats made of Ameripol rubber are available in red, green, blue and black marbled, in 16 by 18 inch size. The mats protect enamel surfaces, reduce noise and protect dishes from breakage. Ameripol rubber used in the mats is resistant to oils and alkalis and thus retains its natural luster and has a long life. **The B. F. Goodrich Co., Dept. CUB, Akron, Ohio. (Key No. 809)**

Excess-Smoke Indicator

The new Photoswitch Excess-Smoke Indicator, Type 2A10C, is designed to give a continuous indication to the boiler room of the condition of the gases which are passing through the flue, signalling when either smoke or air are sufficiently excessive to cause inefficient combustion or create a smoke nuisance. The equipment includes photoelectric control and light source mounted on opposite sides of the flue or breaching which indicate combustion conditions on a Densometer. It is of rugged construction and is supplied in dustproof, mois-



tureproof housing. **Photoswitch, Inc., Dept. CUB, 77 Broadway, Cambridge 42, Mass. (Key No. 810)**

Fire Resistant Paint

"Fire Stop" is the name of a fire resistant paint which is designed to stop small fires before they get well started while providing a durable, attractive finish on walls, ceilings and woodwork. It is reported that in a laboratory test a wall covered with "Fire Stop," when exposed to the direct blue flame of a Bunsen Burner for one full minute, merely formed brown blisters and flames extinguished themselves within 8 to 15 seconds after the burner was removed.

The paint is designed for utility and beauty. It is ready mixed and self-sealing, covering wallpaper, plaster, composition, concrete, steel, brick or wood in one coat. It is washable and is available in five pastel tones as well as white. "Fire Stop" dries to a fine textured flat finish surface. Plicote, Inc., Dept. CUB, 225 Galveston, Pittsburgh 12, Pa. (Key No. 811)

Waterproofing Formula

Ranetite No. V Transparent Waterproofing has been improved by the addition of chemical compounds which improve its waterproofing ability and add the quality of fire-resistance. Made for use on stone, brick or stucco, this transparent liquid is designed to seal out dampness. The coating is applied with a brush and does not change color or appearance of walls. Ranetite Mfg. Co., Inc., Dept. CUB, 1917 S. Broadway, St. Louis 4, Mo. (Key No. 812)

Portable Electric Hand Lamp

Three built-in specific gravity ball indicators, clearly seen through transparent windows in the battery case, tell instantly when the battery charge is low in the new Big Beam No. 311 portable rechargeable electric hand lamp. Proper maintenance is thus assured so that the lamp is always ready for use in case



of emergency failure of power or where a portable hand lamp is needed.

The light has a welded steel container finished in durable baked enamel with a metal carrying handle, chrome plated. The lamp head is 20 gauge steel, 6 inches in diameter, chrome plated. The 6 inch reflector is triple silver plated and there is an auxiliary bulb in case of failure of the main bulb. The head is adjustable to 170 degrees vertical posi-

tion. U-C Lite Mfg. Co., Dept. CUB, 1050 W. Hubbard St., Chicago 22. (Key No. 813)

All Purpose Cleaning Mop

The Du-Fold mop is designed for washing all floors without scratching or swishing; wood—whether varnished, waxed, oiled or painted—linoleum, rubber composition, marble, tile or smooth cement. It can also be used to apply and remove carpet cleaning solutions and for cleaning washable walls and wall coverings. It is equally efficient for dusting or for applying liquid wax.

The Du-Fold all purpose cleaner has a handle long enough to permit its use without stooping, the cleaning unit is a sponge which holds sufficient water for any cleaning purpose and which is easily replaced when worn, and the mechanism squeezes the sponge virtually dry. The sponge-holding base is made of aluminum. The Du-Fold Mop Mfg. Co., Dept., CUB, 2150 E. 18th St., Cleveland 15, Ohio. (Key No. 814)

Germicide, Detergent

Rodacide is a new product which combines the germicidal and fungicidal properties of a quaternary ammonium compound with a compatible non-ionic detergent. It is designed for use in 2 and 3 tank dishwashing systems, for general cleaning of refrigerators, toilet areas, walls, floors and food storage areas. It can also be used as a liquid handsoap.

Non-irritating, non-corrosive, and non-spotting, Rodacide has no odor or taste and can be used with safety in the rinse water used for eating utensils. Fairfield Laboratories, Inc., Dept. CUB, Plainfield, N. J. (Key No. 815)

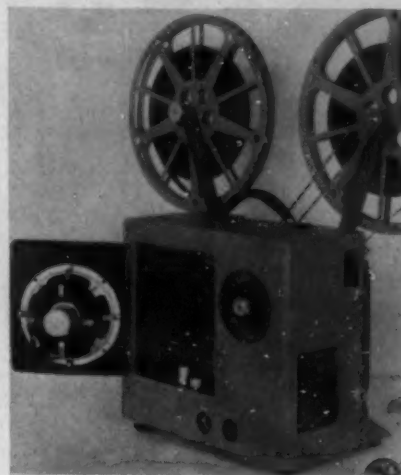
Portable Refractor

The new Tinsley 3 inch refractor telescope is a portable instrument made of aluminum casting and tubing which makes the weight only 30 pounds. The new model is made on a production basis, thus reducing the cost.

The optical system is corrected for chromatic and spherical aberration. Three eyepieces are included to give a wide range of powers, low power for terrestrial and cluster observations and high power for planetary and double star work. The tube, cell, mounting and tripod head are of aluminum and the tripod is of hard maple, of sturdy construction. Specifications include objective: achromatic F/15; focal length: 45 inches; mounting: Altazimuth and powers: 45-90-180. Tinsley Laboratories, Inc., Dept. CUB, Berkeley 4, Calif. (Key No. 816)

DeVry "Bantam" Projector

The new DeVry "Bantam" 16 mm. sound or silent projector incorporates



projection mechanism, sound-head, amplifier, speaker and screen all in one compact case, the complete unit weighing less than 31 pounds. It is designed with adequate illumination for either classroom or auditorium use. Lenses coated with magnesium fluoride reduce internal reflection and increase light transmission, resulting in added brilliance, clarity and contrast in projected pictures. The sound filtering system eliminates disturbances caused by flutter, splices or curled film.

Operation of the new projector is simple so that even an inexperienced teacher or student can set it up and have it ready for sound projection in a matter of minutes. The DeVry Automatic Loop Setter, which permits resetting of the lower loop without damage to the film, is incorporated in the new unit. Other features of the "Bantam" include all controls on one illuminated panel, 2000 foot film capacity, cool operation, one point lubrication, dependable drive motor, safe motor rewinding of film without changing reels, side tension control at aperture and quiet operation. The speaker is a 6 inch Alnico 5 permanent magnet type which may be used attached to the projector in carrying position, open with speaker grille facing the audience, or at the screen, for which a cable is furnished. DeVry Corp., Dept. CUB, 1111 Armistage Ave., Chicago 14. (Key No. 817)

Knight 20 Watt Amplifier

The new Knight 20 watt phono amplifier is especially designed for high fidelity reproduction from phonograph records or AM or FM tuners. Individual bass and treble tone controls are incorporated as is adjustable automatic volume expansion which is independent of volume control setting. Allied Radio Corp., Dept. CUB, 833 W. Jackson Blvd., Chicago 7. (Key No. 818)

Product Literature

- Interesting information and helpful suggestions for the baker, and for all those interested in food planning are presented in a booklet entitled **"Bakery Art"** published by Pillsbury Mills, Inc., Pre-Mix Division, 21 West St., New York 6. The foreword states that master baking is an art and that even the best material is only the start. Then the booklet presents quantity recipes for using Pillsbury Bulk Prepared Mixes together with helpful hints for giving variety and attractiveness to the finished products. (Key No. 819)
- **Bulletin B-5 covering Blowers and Exhausters, Centrifugal Type**, has been issued by the Lamson Corp., Allen Billmyre Div., Syracuse 1, N. Y. Tables, specifications, descriptive information and illustrations of blowers for portable and stationary vacuum cleaning systems and other uses are included. (Key No. 820)
- **"Products for Protection of Exterior Masonry Surfaces Above Grade"** is the title of a leaflet issued by the Minwax Company, Inc., 11 W. 42nd St., New York 18. As the title implies, the bulletin gives information on the repair and protection of masonry surfaces of all types with the use of Minwax transparents, proved and tested materials for application to the exposed face of masonry walls above grade to minimize staining, weather and frost erosion and to correct leakage through exposed walls. (Key No. 821)
- **"Inter-Communicating Telephones"** for every organization need are described and illustrated in a new booklet issued by Stromberg Carlson Co., Rochester 3, N. Y. Included are data on the executive system for selective talking and ringing, the master system, the standard system, the duo-private system, miscellaneous telephones and private exchange telephone systems. (Key No. 822)
- **The Safety-Scape**, a simple, mechanical device for lowering students or personnel from windows in case of fire or other emergency, is described in a folder issued by Safety-Scape Corp., Saginaw, Mich. The device is fastened to any permanent object in the room, such as pipes, radiator, bed or similar equipment, the strap is secured around the body under the arms and the individual is slowly lowered to the ground from a distance as high as five floors. (Key No. 823)
- **Evermark Dry Transfers** to mark your linen are discussed in a folder issued by the Roderking Corp., 5511 Euclid Ave., Cleveland 3, Ohio. Called the "lifetime guardian of your linens," Evermark Dry Transfers are described in full. (Key No. 824)
- **"Ideas for Decorative Floors"** is the title of a booklet published by Johns-Manville, 22 E. 40th St., New York 16, giving detailed information on Johns-Manville Asphalt Tile Flooring. Many floor designs are given, most of them in full color, and there is a special section on colleges and other institutions. There is a page giving a color chart of this attractive, colorful, economical floor covering and there are two pages of floor pattern designs showing the uses of various colors with borders. (Key No. 825)
- **Coronet Instruction Films** are now available on a rental basis as a result of a change in policy recently announced by Coronet Instructional Films, Coronet Bldg., Chicago 1. A list of **Rental Sources for Coronet Instructional Films** in all parts of the country is available from the producer of these outstanding educational films in 16mm. sound, motion and color or black and white. The change was made to provide better service and rental outlets were carefully selected for dependable and efficient service. (Key No. 826)
- **Tested recipes for using Magic Onions** in quantity cooking are available in a booklet issued by H. J. Heinz Co., Pittsburgh 30, Pa., entitled **"Magic Onions, Ready to Use for All Kinds of Onion Cookery."** Recipes include soups, meat and main dishes, vegetables, salads and salad dressing, sauce and miscellaneous items. How Magic Onions are prepared, flavor and quality control, cost control and table of strength and flavor equivalents are some of the subjects covered in addition to the recipes. (Key No. 827)
- **Lee New York Type Institutional Steam-Jacketed Kettles** for the preparation of food are manufactured according to A.S.M.E. Code specifications and therefore conform to all safety requirements. These kettles are described and illustrated in a new 4 page bulletin published by Lee Metal Products, Inc., Philadelphia, Pa. Complete specifications for two-thirds jacketed kettles from 25 to 150 gallon capacities and full jacketed kettles from 20 to 100 gallon capacities are included. (Key No. 828)
- Detailed information on **Iceberg Refrigerated Lockers, Series 600**, for freezing and storage of frozen foods is given in a folder released by Iceberg Refrigerated Locker Systems, Inc., Empire State Bldg., New York 1. Construction features, specifications, uses and advantages of these refrigerated lockers, which provide below-zero temperatures in all drawer sections while surrounding areas remain at normal room temperatures, are given in detail. (Key No. 829)
- **Duriron acidproof sinks, sink strainers, traps and sanitary pipe and fittings** are described and their uses illustrated in a 12 page manual—**Bulletin 703**—recently issued by The Duriron Co., Inc., Dayton 1, Ohio. The manual contains data on the composition of Duriron, its corrosion resistance qualities, use in chemistry laboratories, proper installation, complete check list of uses and specification requirements. (Key No. 830)
- **Seco-Ware stainless steel utensils** for all food preparation service and storage are described and illustrated in **Catalog SW-47** issued by Seco Company, Inc., 5206 S. 38th St., St. Louis 16, Mo. These utensils, with Nastro nesting feature, new Seco finish which cannot chip or crack, smooth hard surface for ease in cleaning and designed to withstand every day heavy use are shown in all sizes and styles in the catalog which also contains complete specifications and prices. (Key No. 831)
- **Facts on the new Underwood All Electric Typewriter** are given in a brochure issued by the Underwood Corp., 1 Park Ave., New York 16. The advantages of this new type all electric machine, its attractive streamlined appearance and details of its operation are included. Those who have responsibility for buying typewriters as well as those who operate them will want to look over this folder. (Key No. 832)
- **"Holding Low Temperatures With Better Insulation"** is the title of a manual developed by the technical and service committees of the Industrial Mineral Wool Institute, 441 Lexington Ave., New York 17. The booklet should be of particular interest to hospital architects, engineers, administrators and building committees as it presents data on how to select insulation for air conditioning, cold storage and freezing units and what to look for, photographs, diagrams, charts and tables and analyses of typical case history installations. (Key No. 833)
- A simple method of evacuating students and teaching personnel as well as all other occupants from a burning building is discussed in a folder issued by the Eastman Evacuator Co., 2902 Stott Bldg., Detroit 26, Mich. The folder describes the **Eastman Evacuator**, a long, canvas chute resembling a gigantic playground slide, down which victims can slide comfortably and quickly to safety, and illustrates its use in many types of buildings. The device can be permanently installed or quickly attached. The two models, the Ground Ladder and the Aerial-Ladder, are designed for heights up to 55 feet in the first instance and up to 94 feet for the Aerial-Ladder. (Key No. 834)



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This Indianapolis Kitchen Handles 3000 Meals a Day for a 195-Seat Restaurant

EVERY week brings fresh evidence of the efficiency and economy of Hotpoint electric cooking equipment. More than 15 meals per seat per day is the impressive volume and turnover record set by Dan Clark's popular Indianapolis restaurant.

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3 Cuts labor costs. Hotpoint cooking saves hours of work by releasing the cook from constant watching and regulating. And Hotpoint cooking is clean, which means far less scouring and scrubbing.



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5 Cuts maintenance costs. Careful analysis over a long period shows the average annual costs of maintaining Hotpoint equipment is only 1-1½% of investment. With flame types the cost is 2-5%.



6 Saves kitchen space. Hotpoint equipment is compact; it can be installed in the most convenient and efficient arrangement without regard to location of chimneys or flues.



7 More efficient. Hotpoint electric equipment is 2.68 times more efficient than flame types, according to tests made at a midwestern university. And your rate goes down, when you cook by electricity.

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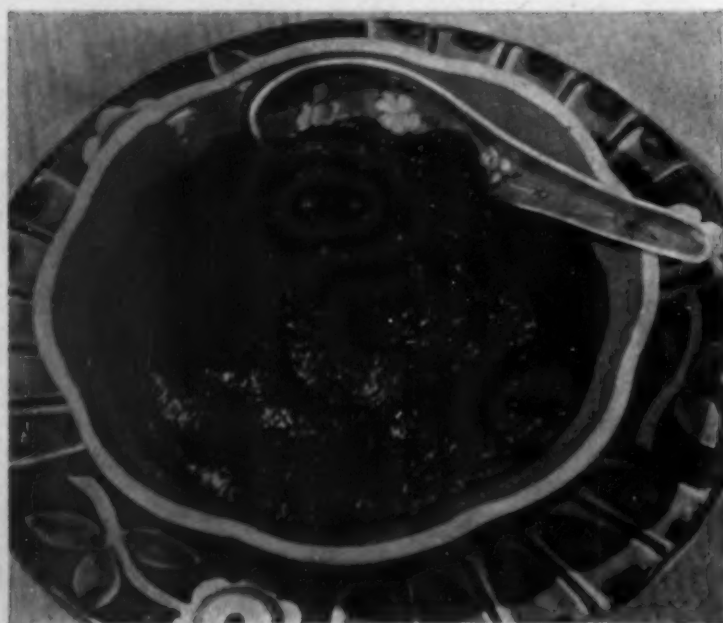
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